# EREZ ZADOK, CURRICULUM VITAE

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## RESEARCH INTERESTS

Operating systems with a special focus on file systems, storage, clouds, big data, hardware/architecture, encryption, security, benchmarking, performance analysis and optimization, energy efficiency, and system administration.

## EDUCATION

May 2001 Ph.D., Computer Science, Columbia University, New York, NY,
*FiST: A System for Stackable File-System Code Generation*.

Sep 1997 M.Phil., Computer Science, Columbia University, New York, NY

Oct 1994 M.S., Computer Science, Columbia University, New York, NY
*Discovery and Hot Replacement of Replicated Read-Only File Systems, with Application to Mobile Computing*

May 1991 B.S., Computer Science, Columbia University, New York, NY

May 1982 Certified Technician, Electrical Engineering, Holtz College, Israel

## PROFESSIONAL EXPERIENCE

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| Aug 2017–present | Graduate Academic Adviser, Computer Science Department, Stony Brook University |
| Jan 2016–present | Professor, Computer Science Department, Stony Brook University |
| Jan 2007–2015 | Associate Professor, Computer Science Department, Stony Brook University |
| Jan 2001–Jan 2007 | Assistant Professor, Computer Science Department, Stony Brook University |
| 2013–present | Director, Smart Energy Technologies (SET) Faculty Cluster, Stony Brook University |
| 2023–present | Technical Expert; Desmarais, LLP |
| 2023–present | Technical Expert; Smith Baluch LLP |
| 2022–present | Technical Expert; Faegre Drinker Biddle & Reath LLP |
| 2022 | Technical Expert; Rothwell, Figg, Ernst & Manbeck, P.C. |
| 2022 | Technical Expert; Unified Patents, LLC |
| 2022–present | Technical Expert; Latham & Watkins, LLP |
| 2021–present | Technical Expert; King & Spalding LLP. |
| 2021–2022 | Technical Expert; Wilson Sonsini Goodrich & Rosati (WSGR) LLP. |
| 2021–2022 | Technical Expert; Perkins Coie LLP |
| 2021–2022 | Technical Expert; Morrison & Forester, LLP. |



IPR2023-00971
International Business Machines Corporation v. Digital Doors, Inc.
IBM's Exhibit 1004
Ex. 1004, Page 1

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| 2021–2022 | Technical Expert; Jones Day, LLP. |
| 2021–2022 | Technical Expert; Orrick, Herrington & Sutcliffe, LLP. |
| 2021 | Technical Expert; Fasken Martineau DuMoulin LLP |
| 2020 | Technical Expert; United States Attorney's Office, Eastern District of New York |
| 2020 | Technical Expert; Latham & Watkins, LLP |
| 2020 | Technical Expert; Morgan Lewis & Bockius LLP |
| 2020–2021 | Technical Expert; Covington & Burling, LLP |
| 2019–2020 | Technical Expert; Quinn Emanuel Urquhart & Sullivan, LLP |
| 2019 | Technical Expert; Hogan Lovells LLP. |
| 2018–2020 | Technical Expert; King & Spalding LLP. |
| 2018–2019 | Technical Expert; Orrick, Herrington & Sutcliffe, LLP. |
| 2017–2018 | Technical Expert; Weil, Gotshal & Manges LLP. |
| 2017–2019 | Technical Expert; Keker, Van Nest, & Peters LLP. |
| 2016–2018 | Technical Expert; Sterne, Kessler, Goldstein & Fox, P.L.L.C. |
| 2015–2018 | Technical Expert; Wilmer Cutler Pickering Hale and Dorr LLP. (WilmerHale) |
| 2015–2017 | Technical Expert; Ropes & Gray, LLP. |
| 2014–2015 | Technical Expert; Foley & Lardner, LLP. |
| 2014–2016 | Technical Expert; Latham & Watkins, LLP. |
| 2014–2016 | Technical Expert; Keker & Van Nest, LLP. |
| 2013–present | Managing Member; Zadoks Consulting, LLC. |
| 2013–2014 | Technical Expert; Sterne, Kessler, Goldstein & Fox, P.L.L.C. |
| 2013 | Technical Expert; Akin, Gump, Strauss, Hauer & Feld, LLP. |
| 2012–2015 | Technical Expert; Susman Godfrey, LLP. |
| 2012–2013 | Technical Expert; Fish Richardson, LLP. |
| 2010–2011 | Technical Expert; Sughrue Mion, LLP. |
| 2010 | Technical Expert; One LLP. |
| 2009–2010 | Consultant; CTERA Networks, Inc. |
| 2009–2019 | Consultant; Packet General Networks, Inc. |
| 2006–2007 | Technical Expert; Hennigan, Bennett, and Dorman, LLP. |
| 1991–2000 | Graduate Research Assistant, Computer Science Department, Columbia University |
| 1999–2000 | Director of Software Development, HydraWEB Technologies, Inc. |
| 1994–1998 | Project Leader, HydraWEB Technologies, Inc. |

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| 1990–1998 | Consultant, SOS Corporation |
| 1997 | Manager of Computing Facilities, Computer Science Department, Columbia University |
| 1991–1998 | Technical Staff Member, Computer Science Department, Columbia University |
| 1989–1991 | Assistant Lab Manager, Academic Information Systems, Columbia University |
| 1987–1989 | Student Consultant, Academic Information Systems, Columbia University |
| 1984–1986 | National Army Service, Israeli Air Force, Israel |
| 1982–1984 | Programmer, Commodore Israel, Tel-Aviv, Israel |
| 1981–1984 | Computer Lab Manager, Holtz College, Tel-Aviv, Israel |

## PERSONAL

Born December 4, 1964, Tel-Aviv, Israel.

Married, one child.

Citizenships: U.S.A and Israel

Fluent in English and Hebrew

Member: ACM, ACM SIGOPS, IEEE, IEEE Computer Society, USENIX

Affiliate: Storage Systems Research Center (SSRC), Jack Baskin School of Engineering, University of California, Santa Cruz, California.

Member: The I/O Traces, Tools and Analysis (IOTTA) Technical Work Group (TWG), part of the the Storage Networking Industry Association (SNIA).

## FUNDING

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| Oct 2022–present | *CNS Core: Large: Systems and Verifiable Metrics for Sustainable Data Centers*. NSF. $1,500,000 (SBU share $928,403), 4 years. Co-PI with four other SBU faculty, collaborative with Binghamton University and Penn State University. |
| Oct 2022–present | *Collaborative Research: CyberTraining: Implementation: Medium: FOUNT: Scaffolded, Hands-On Learning for a Data-Centric Future*. NSF. $996,548 (SBU share $174,905), 3 years. Sole PI at SBU. Collaborative with U. Chicago (lead), NYU, Northern Illinois U., and UC San Diego (6 collaborators total). |
| 2022 | *CNS Core: Medium: Optimizing Storage Caches via Adaptive and Reconfigurable Tiering*. NSF Research Experiences for Undergraduates (REU) supplement. $16,000. Lead-PI with one other SBU faculty, collaborative with Emory University. |
| 2022 | *SCC-IRG Track 1: Smart Aging: Connecting Communities Using Low-Cost and Secure Sensing Technologies*. NSF Research Experiences for Undergraduates (REU) supplement. $24,000. Co-PI with four other SBU faculty. |
| 2022 | *CNS Core: Medium: Optimizing Storage Caches via Adaptive and Reconfigurable Tiering*. NSF Research Experiences for Undergraduates (REU) supplement. $16,000. Lead-PI with one other SBU faculty, collaborative with Emory University. |

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| 2022 | *CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems*. NSF Research Experiences for Undergraduates (REU) supplement. $16,000. Lead PI with one other. |
| Oct 2021–present | *CNS Core: Medium: Optimizing Storage Caches via Adaptive and Reconfigurable Tiering*. NSF. $800,000 (SBU share $533,333), 3 years. Lead-PI with one other SBU faculty, collaborative with Emory University. |
| Oct 2021–present | *CNS Core: Medium: Secure, Reliable, and Efficient Long-Term Storage*. NSF. $1,198,842 (SBU share $717,303), 4 years. Lead-PI with one other SBU faculty, collaborative with UC Santa Cruz. |
| 2021–2022 | *Kubernetes/Containerizations on GPU Clusters for AI*. SUNY-IBM AI Collaborative Research Alliance. $100,000. Co-PI with two others. |
| 2020–2021 | *Automated Cross-Validation of TLS 1.3 Implementations*. Facebook Faculty Research Award. $50,000. Lead PI with two others. |
| Oct 2020–present | *SCC-IRG Track 1: Smart Aging: Connecting Communities Using Low-Cost and Secure Sensing Technologies*. NSF Smart and Connected Communities. $1,700,126, 4 years. Co-PI with four other SBU faculty. |
| Sep 2020–present | *Recruitment and Retention of Women Undergraduates*. Center for Inclusive Computing Diversity Initiative, by Northeastern University and Pivotal Ventures. $295,742, 4 years. Co-PI with four other SBU faculty. |
| 2020 | *FMitF: Track I: NLP-Assisted Formal Verification of the NFS Distributed File System Protocol*. NSF Research Experiences for Undergraduates (REU) supplement. $16,000. Lead PI with two others. |
| 2020 | *CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems*. NSF Research Experiences for Undergraduates (REU) supplement. $8,000. Lead PI with one other. |
| Oct 2019–present | *CNS Core: III: Medium: Collaborative Research: Optimizing and Understanding Large Parameter Spaces in Storage Systems* NSF. $1,088,017 (SBU share $823,142), 4 years. Lead-PI with one other SBU faculty, collaborative with Harvey Mudd College. |
| Oct 2019–present | *FMitF: Track I: NLP-Assisted Formal Verification of the NFS Distributed File System Protocol* NSF. $748,300, 3 years. Lead-PI with two other SBU faculty. |
| 2019 | *CI-SUSTAIN: National File System Trace Repository*. NSF Research Experiences for Undergraduates (REU) supplement. $8,000. Sole PI. |
| 2019 | *Study of a Novel Non-Wearable Respiration and Heart Rate Sensor in Cardiopulmonary Exercise Testing*. Stony Brook College of Engineering and Applied Sciences, SEED grant. $15,000, Co-PI with five others. |
| 2019 | *Realizing the Full Performance and Parallelization Potential of Modern Storage Architectures for Big Data Applications*. Stony Brook Research Foundation, SEED grant. $60,000, Co-PI with Anshul Gandhi. |
| 2018 | *Storage/Deduplication research*. Dell-EMC Corporation. $25,000, Single PI. |

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| Jun 2017–present | *CI-SUSTAIN: National File System Trace Repository*. NSF. $129,867 (SBU share), 3 years. Co-PI with lead institution Harvey Mudd College. |
| 2017–2022 | *I/UCRC Phase II: Center for Visual and Decision Informatics (CVDI) Site at SUNY Stony Brook*. NSF. $400,000, 4 years. Co-PI with A. Kaufman, K. Mueller, H. Schwartz, and D. Samaras. |
| 2017 | Dell-EMC Corporation. *Storage/Deduplication research*, $25,000, Single PI. |
| 2016–2021 | *NRT-DESE: Interdisciplinary Graduate Training to Understand and Inform Decision Processes Using Advanced Spatial Data Analysis and Visualization (STRIDE)*. NSF. $2,993,930, 5 years. Senior personnel. |
| 2016–2019 | *Early Detection of User-impersonating Attackers using Multilayer Tripwires*, U.S. Office of Naval Research (ONR). $586,215, 3 years. Co-PI with Nick Nikiforakis. |
| Jun 2016–2019 | *EAGER: Elastic Multi-layer Memcached Tiers* NSF. $257,165, 2 years. Co-PI with Anshul Gandhi. |
| 2016 | EMC Corporation. *Storage/Deduplication research*, $25,000, Single PI. |
| 2015 | EMC Corporation. *Storage/Deduplication research*, $25,000, Single PI. |
| Feb 2015 | *Student Travel Support for the 13$^{th}$ USENIX Conference on File and Storage Technologies (FAST 2015)*. NSF. $20,000, 1 year. Sole PI. |
| Sep 2014–2017 | *Adaptive Runtime Verification and Recovery for Mission-Critical Software*. U.S. Air Force Office of Scientific Research (AFOSR). $620,861, 3 years. Co-PI with Scott A. Smolka and Scott D. Stoller. (Collaboration with NASA JPL.) |
| Jan 2014–2016 | *Smarter Electric Grid Research, Innovation, Development, Demonstration, Deployment Center (SGRID3)*. Brookhaven Science Associates LLC (BNL), $236,397, 1 year. Lead-PI with one other Stony Brook Co-PI. |
| 2014 | EMC Corporation. *Storage/Deduplication research*, $25,000, Sole PI. |
| Jun 2013–2017 | *CSR: Medium: Collaborative Research: Workload-Aware Storage Architectures for Optimal Performance and Energy Efficiency*. NSF. $513,900 (SBU share, total budget $1,000,000), 3 years. Lead-PI with one other Stony Brook Co-PI, and two more institutions (Harvard U. and Harvey Mudd College). |
| Jan 2013–2017 | *BIGDATA: Small: DCM: Collaborative Research: An efficient, versatile, scalable, and portable storage system for scientific data containers*. NSF. $444,267 (SBU share, total budget $746,290), 3 years. Lead-PI with two other Stony Brook Co-PIs, and two more institutions (Brandeis U. and Louisiana State U.). |
| Sep 2013–2017 | *CRI-CI-ADDO-EN: National File System Trace Repository*. NSF. $37,018 (SBU share, total budget $167,817), 3 years. Co-PI with lead institution Harvey Mudd College. |
| 2013 | Western Digital Research award. *Shingled Magnetic Recording Disks Benchmarking*, $50,000, Single PI. |
| Sep 2012 – 2016 | *NFS4Sec: An Extensible Security Layer for Network Storage*. NSF. $486,783, 3 years. Lead-PI with one other Co-PI. |

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| 2012-2013 | *Server-Class Performance vs. Energy Optimizations*. Government of Israel (GoI), Mission to the USA. $47,152, 1 year. Lead PI with one other Co-PI. |
| 2011 | NetApp Research award. *Dedup Workload Modeling, Synthetic Datasets, and Scalable Benchmarking*, $40,000, Single PI. |
| 2010 | NetApp Research award. *A Study of Network Storage Benefits using FLASH Hardware with Indexing Workloads*, $40,000, Single PI. |
| Nov 2010 – 2016 | *Long Island Smart Energy Corridor*. Department of Energy (DOE), LIPA, and New York State. Collaboration between Stony Brook University, SUNY Farmingdale, and LIPA. $2,822,638, Co-PI. |
| Sep 2009 – Aug 2013 | *Collaborative Research: Performance- and Energy-Aware HEC Storage Stacks*. NSF. $652,000, 3 years. Co-PI with Geoff Kuenning (Harvey Mudd College) |
| Sep 2009 – Aug 2013 | *Collaborative Research: Secure Provenance in High End Computing Systems*. NSF. $564,972, 3 years. Co-PI with Radu Sion. Collaborative project with Patrick McDaniel (Penn State U.) and Marianne Winslett (UIUC). |
| Apr 2009 – Nov 2012 | *Survivable Software*. U.S. Air Force Office of Scientific Research (AFOSR). $881,691, 39 months. Co-PI with Scott A. Smolka, Radu Grosu, Scott D. Stoller, and Klaus Havelund (NASA JPL). |
| Feb 2010 | *Student Travel Support for the First USENIX Workshop on Sustainable Information Technology (SustainIT 2010)*. NSF. $10,000, 1 year. Lead PI. |
| 2009 | Network Appliance Research award. *Power use in Storage Servers.* $30,000 Single PI. |
| 2008 | *The Impact of Storage Software and Aging on Power Consumption*, **IBM Faculty award** (IBM T.J. Watson Labs). $20,000, one year. Single PI. |
| 2008 | Network Appliance Equipment gift. *A Study of User File Access Patterns.* $91,083 Single PI. |
| Sep 2007 – 2015 | *Center for Information Protection: A Multi-University Industry/University Collaborative Research Center*. NSF. $250,147, 5 years. Co-PI with R. Sekar (PI), Tzi-Cker Chiueh, Scott Stoller, and Radu Sion. |
| Sep 2006 – Aug 2009 | *CT-ISG: N3S: Networked Secure Searchable Storage with Privacy and Correctness Assurances*. NSF. $300,000, 3 years. Co-PI with Radu Sion. |
| Aug 2006 – Aug 2010 | *File System Tracing, Replaying, Profiling, and Analysis on HEC Systems*. NSF. $760,252, 3 years. Lead PI with Klaus Mueller (Stony Brook) and Ethan Miller (UC Santa Cruz). |
| Jul 2006 | *End-to-End File Server Security*, **IBM Faculty award** (IBM Haifa Research Labs). $20,000, one year. Single PI. |
| Jun 2006 – Aug 2010 | *CSR—PDOS: Support for Atomic Sequences of File System Operations*. NSF. $561,727, 3 years. Lead PI with Margo Seltzer (Harvard University). |
| Jan 2006 – Dec 2006 | *Secure File Systems*, NY State "Millennium" award, $204,528, one year. Co-PI with R. Sekar (PI), Tzi-Cker Chiueh, CR Ramakrishnan, Radu Sion, and Scott D. Stoller. |

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| Jul 2005 – Aug 2010 | *CSR—AES: Runtime-Monitoring and Model Checking for High-Confidence Systems Software*. NSF. $830,000, 4 years. Lead PI with Radu Grosu, Y. Annie Liu, Scott Smolka, and Scott D. Stoller. |
| Sep 2005 – Aug 2004 | *I/UCRC: A Plan for Developing a Multi-University Industry/University Collaborative Research Center on Cyber Security*. NSF. $9,987, one year. Co-PI with R. Sekar, Radu Sion Scott D. Stoller, and Tzi-Cker Chiueh. |
| Sep 2004 – Aug 2009 | *Federal Cyber Service: Scholarship for Service (SFS)*. NSF. $2,459,061, 4 years. Co-PI with R. Sekar, Scott D. Stoller, I. V. Ramakrishnan, and Tzi-Cker Chiueh. |
| Sep 2003 – Aug 2008 | *A Layered Approach to Securing Network File Systems*. NSF Trusted Computing Program (TC). $400,000, 3 years. Single PI. |
| Sep 2003 – Aug 2005 | *Collaborative Research: Capacity Expansion in Information Assurance*. NSF Collaborative Research Proposal (CAP). $199,883, 2 years. Co-PI with R. Sekar, Scott D. Stoller, and I. V. Ramakrishnan. |
| Sep 2002 – Aug 2007 | **CAREER**: *An In-Kernel Runtime Execution Environment for User-Level Programs.* NSF Next Generation Software Program (NGS). $400,000, 5 years. Single PI. |
| Jan 2003 – Dec 2003 | *Assessing the Technological Basis for Enterprise Protection*, NIJ (CyberScience Lab) CSL. $90,563, one year. Co-PI with R. Sekar, Tzi-cker Chiueh, and Scott D. Stoller. |
| Sep 2002 – May 2003 | New York State Strategic Partnership for Industrial Resurgence (SPIR), with Packet General Networks. *S3: Secure Shared Storage.* $94,581. Single PI. |
| May 2002 – Aug 2002 | New York State Strategic Partnership for Industrial Resurgence (SPIR), with Packet General Networks. *A Secure and Scalable Network Appliance.* $55,676. Single PI. |
| Apr 2003 | Microsoft Tablet PC Seed Award. $4,169. Single PI. |
| 2002 | HP/Intel IA-64/IPF Second Generation Equipment gift. *Linux Application Performance and File System Security.* $131,529. Single PI. |
| 2001 | HP/Intel IA-64/IPF Equipment gift. *Linux Network Scalability and File System Reliability.* $22,490. Single PI. |
| 2001 | Red Hat University software award. |

## Awards and Honors

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| 2023 | Elected as IEEE Senior Member |
| 2021–2022 | Chancellor's Award for Excellence in Scholarship and Creative Activities, State University of New York (SUNY). |
| 2022 | Provost's Excellent Mentor award, Stony Brook University. |
| 2021 | Elected as ACM Distinguished Member for "Outstanding Scientific Contributions to Computing." |
| 2021 | Dean's "Millionaire" award (given lead PIs who secure more than one-million dollars of new funding in a given year), College of Engineering and Applied Sciences, Stony Brook University. |

2020 Inducted as member of the Stony Brook University Chapter of the National Academy of Inventors (NAI).

2020 Best paper award. M. Wajahat, A. Yele, T. Estro, A. Gandhi, and E. Zadok. Distribution fitting and performance modeling for storage traces. In 27th IEEE International Symposium on the Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2019).

2019 Dean's "Millionaire" award (given lead PIs who secure more than one-million dollars of new funding in a given year), College of Engineering and Applied Sciences, Stony Brook University.

Sep 2011 Best Paper Award. S. D. Stoller and E. Bartocci and J. Seyster and R. Grosu and K. Havelund and S. A. Smolka and E. Zadok. Runtime verification with state estimation. In proceedings of the 2nd International Conference on Runtime Verification (RV'11).

Dec 2009 LISTnet's "Top 20 techies of Long Island" award.

Aug 2008 Service Award (for 2006–2008), Stony Brook University, Computer Science Department

2008 IBM Faculty award (IBM T.J. Watson Labs)

2007–2008 Chancellor's Award for Excellence in Teaching, State University of New York (SUNY).

2007–2008 President's Award for Excellence in Teaching, Stony Brook University.

Aug 2006 Research Excellence Award (for 2005–2006), Stony Brook University, Computer Science Department

Jul 2006 IBM Faculty award (IBM Haifa Research Labs)

Nov 2005 Best Short Paper Award. N. Joukov, A. Kashyap, G. Sivathanu, E. Zadok. Kefence: An Electric Fence for Kernel Buffers. In proceedings of the first ACM International Workshop on Storage Security and Survivability (StorageSS 2005), "The Paradigm Shift to Info-Centric Protection," held in conjunction with the 12th ACM Conference on Computer and Communications Security (CCS 2005).

May 2005 Best Paper Award. N. Joukov, A. Rai, and E. Zadok. Increasing Distributed Storage Survivability with a Stackable RAID-like File System. In proceedings of the 2005 IEEE/ACM Workshop on Cluster Security, in conjunction with the Fifth IEEE/ACM International Symposium on Cluster Computing and the Grid (CCGrid).

Aug 2004 Graduate Teaching and Research Award (for 2003–2004), Stony Brook University, Computer Science Department

May 2003 Promising Inventor Award, The State University of New York, Research Foundation

Sep 2002 NSF CAREER award, National Science Foundation

Jun 2001 Best Student Paper. M. G. Schultz, E. Eskin, E. Zadok, M. Bhattacharyya, and S. J. Stolfo. MEF: Malicious Email Filter — A UNIX Mail Filter that Detects Malicious Windows Executables. In *Proceedings of the Annual USENIX Technical Conference, FreeNIX Track*, pages 245–252, JUNE 2001.

Jun 2000 Usenix Student Stipend award

Jun 1999 Usenix Student Stipend award

1991 Dean's List

1991 NCR Best Undergraduate Research Award

1989–1990 Gussman Scholar

1988–1989 National Dean's List

1988–1989 Scheuer Foundation Presidential Scholar

1988 Dean's List

# PUBLICATIONS

## Books

E. Zadok. *Linux NFS and Automounter Administration*. Sybex, Inc., May 2001.

## Journal and Magazine Articles

Ibrahim "Umit" Akgun, Ali Selman Aydin, Andrew Burford, Michael McNeill, Michael Arkhangelskiy, and Erez Zadok. Improving storage systems using machine learning. *ACM Transactions on Storage (TOS)*, 1(1):1–30, Nov 2022. To appear.

Erez Zadok and Ada Gavrilovska. Running virtual pc (cpc) meetings. *;login: The USENIX Magazine*, 45(2):54–56, July 2020.

Muhammad Wajahat, Aditya Yele, Tyler Estro, Anshul Gandhi, and Erez Zadok. Analyzing the distribution fit for storage workload and internet traffic traces. *Performance Evaluation*, pages 102–121, 2020.

George Amvrosiadis, Ali R. Butt, Vasily Tarasov, Erez Zadok, and Ming Zhao. Selected results of the workshop on data storage research 2025. *;login: The USENIX Magazine*, 44(4):24–28, December 2019.

Bharath Kumar Reddy Vangoor, Prafful Agarwal, Manu Mathew, Arun Ramachandran, Swaminathan Sivaraman, Vasily Tarasov, and Erez Zadok. Performance and resource utilization of FUSE user-space file systems. *ACM Transactions on Storage (TOS)*, 15(2), May 2019.

Zhen "Jason" Sun, Geoff Kuenning, Sonam Mandal, Philip Shilane, Vasily Tarasov, Nong Xiao, and Erez Zadok. Cluster and single-node analysis of long-term deduplication patterns. *ACM Transactions on Storage (TOS)*, 14(2), May 2018.

Ming Chen, Geetika Bangera, Dean Hildebrand Farhaan Jalia, Geoff Kuenning, Henry Nelson, and Erez Zadok. vNFS: Maximizing NFS performance with compounds and vectorized I/O. *ACM Transactions on Storage (TOS)*, 13(7), September 2017.

Vasily Tarasov, Erez Zadok, and Spencer Shepler. Filebench: A flexible framework for file system benchmarking. *;login: The USENIX Magazine*, 41(1):6–12, March 2016.

Z. Li, M. Chen, A. Mukker, and E. Zadok. On the trade-offs among performance, energy, and endurance in a versatile hybrid drive. *ACM Transactions on Storage (TOS)*, 11(3), July 2015.

Ming Chen, Dean Hildebrand, Geoff Kuenning, Soujanya Shankaranarayana, Bharat Singh, and Erez Zadok. Is NFSv4.1 ready for prime time? *;login: The USENIX Magazine*, 40(3):6–12, June 2015.

Zhiyuan Zhang, Kevin T. McDonnell, Erez Zadok, and Klaus Mueller. Visual correlation analysis of numerical and categorical data on the correlation map. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 21(2), February 2015.

Michael A. Bender, Martin Farach-Colton, Rob Johnson, Russell Kraner, Bradley C. Kuszmaul, Dzejla Medjedovic, Pablo Montes, Pradeep Shetty, Richard P. Spillane, and Erez Zadok. Don't thrash: How to cache your hash on flash. 5(11):1627–1637, August 2012.

J. Seyster, K. Dixit, X. Huang, R. Grosu, K. Havelund, S. A. Smolka, S. D. Stoller, and E. Zadok. InterAspect: Aspect-oriented instrumentation with GCC. *Formal Methods in System Design*, August 2012.

X. Huang, J. Seyster, S. Callanan, K. Dixit, R. Grosu, S. A. Smolka, S. D. Stoller, and E. Zadok. Software monitoring with controllable overhead. *International Journal on Software Tools for Technology Transfer (STTT)*, 14(3):327–347, 2012.

Priya Sehgal, Vasily Tarasov, and Erez Zadok. Optimizing energy and performance for server-class file system workloads. *ACM Transactions on Storage (TOS)*, 6(3), September 2010.

E. Zadok, V. Tarasov, and P. Sehgal. The case for specialized file systems, or, fighting file system obesity. *;login: The USENIX Magazine*, 35(1):38–40, February 2010.

M. T. Dougherty, M. J. Folk, E. Zadok, H. J. Bernstein, F. C. Bernstein, K. W. Eliceiri, W. Benger, and C. Best. Unifying biological image formats with hdf5. *Communications of the ACM (CACM)*, 52(10):42–47, October 2009.

A. Traeger and E. Zadok. Notes on a nine year study of file system and storage benchmarking. *Byte and Switch*, July 2009. www.byteandswitch.com/storage/storage-management/notes-on-a-nine-year-study-of-file-system-and-storage-benchmarking.php.

A. Traeger, E. Zadok, E. L. Miller, and D. D. E. Long. Findings from the first annual storage and file systems benchmarking workshop. *;login: The USENIX Magazine*, 33(5):113–117, October 2008.

Avishay Traeger, Erez Zadok, Nikolai Joukov, and Charles P. Wright. A nine year study of file system and storage benchmarking. *ACM Transactions on Storage (TOS)*, 4(2):25–80, May 2008.

C. P. Wright, R. Spillane, G. Sivathanu, and E. Zadok. Extending ACID semantics to the file system. *ACM Transactions on Storage (TOS)*, 3(2):1–42, June 2007.

Erez Zadok, Rakesh Iyer, Nikolai Joukov, Gopalan Sivathanu, and Charles P. Wright. On incremental file system development. *ACM Transactions on Storage (TOS)*, 2(2):161–196, 2006.

C. P. Wright, J. Dave, P. Gupta, H. Krishnan, D. P. Quigley, E. Zadok, and M. N. Zubair. Versatility and unix semantics in namespace unification. *ACM Transactions on Storage (TOS)*, 2(1):1–32, February 2006.

C. P. Wright and E. Zadok. Unionfs: Bringing file systems together. *Linux Journal*, 2004(128):24–29, December 2004.

E. Zadok. Using the Amd automounter. *Linux Journal*, 10(114):52–55, October 2003.

E. Zadok. Writing stackable file systems. *Linux Journal*, 05(109):22–25, May 2003.

W. Lee, W. Fan, M. Miller, S. Stolfo, and E. Zadok. Toward cost-sensitive modeling for intrusion detection and response. *Journal of Computer Security*, 10(1–2):5–22, January 2002.

## Refereed Conference and Workshop Papers

Yifei Liu, Gautam Ahuja, Geoff Kuenning, Scott Smolka, and Erez Zadok. Input and output coverage needed in file system testing. In *Proceedings of the 15th ACM Workshop on Hot Topics in Storage and File Systems (HotStorage '23)*, Boston, MA, July 2023. ACM. To appear.

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## Other Publications

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Ibrahim "Umit" Akgun. Using machine learning to improve operating systems' I/O subsystems. Technical Report FSL-22-02, Computer Science Department, Stony Brook University, June 2022.

Sayontan Ghosh, Amanpreet Singh, Alex Merenstein, Wei Su, Scott Smolka, Erez Zadok, and Niranjan Balasubramanian. SpecNFS: A challenge dataset towards extracting formal models from natural language specifications. Non-archival poster presentation in the Workshop on Natural Language Processing for Programming in the ACL'21 conference, August 2021.

Tyler Estro. Accelerating multi-tier cache evaluations with intelligent MRC point selection. Technical Report FSL-21-01, Computer Science Department, Stony Brook University, January 2021.

Wei Su. Supporting transactions for bulk NFSv4 compounds. Technical Report FSL-20-02, Computer Science Department, Stony Brook University, December 2020.

Alex Merenstein. CNSBench: A cloud native storage benchmark. Technical Report FSL-20-01, Computer Science Department, Stony Brook University, December 2020.

Ibrahim "Umit" Akgun. Re-animator: Versatile high-fidelity system-call tracing and replaying. Technical Report FSL-19-02, Computer Science Department, Stony Brook University, May 2019.

George Amvrosiadis, Ali R. Butt, Vasily Tarasov, Erez Zadok, Ming Zhao, Irfan Ahmad, Remzi H. Arpaci-Dusseau, Feng Chen, Yiran Chen, Yong Chen, Yue Cheng, Vijay Chidambaram, Dilma Da Silva, Angela Demke-Brown, Peter Desnoyers, Jason Flinn, Xubin He, Song Jiang, Geoff Kuenning, Min Li, Carlos Maltzahn, Ethan L. Miller, Kathryn Mohror, Raju Rangaswami, Narasimha Reddy, David Rosenthal, Ali Saman Tosun, Nisha Talagala, Peter Varman, Sudharshan Vazhkudai, Avani Waldani, Xiaodong Zhang, Yiying Zhang, and Mai Zheng. Data storage research vision 2025:

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Sonam Mandal. Design and implementation of an open-source deduplication platform for research. Technical Report FSL-15-03, Computer Science Department, Stony Brook University, December 2015.

Ming Chen. Kurma: Geo-distributed secure middlewares for cloud-backed network attached storage. Technical Report FSL-15-02, Computer Science Department, Stony Brook University, November 2015.

Arun Olappamanna Vasudevan. Finding the right balance: Security vs. performance with network storage systems. Master's thesis, Stony Brook University, May 2015. Technical Report FSL-15-01, http://www.fsl.cs.sunysb.edu/docs/arun-msthesis/arun-msthesis.pdf.

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## PATENTS

Multi-Tier Caching, U.S. Patent 9,959,279, issued May 1, 2018.

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Systems and methods for detection of new malicious executables, U.S. Patent 7,979,907B2, issued July 12, 2011.

System and methods for detection of new malicious executables, U.S. Patent 7,487,544B2, issued February 3, 2009.

## ACADEMIC SERVICE

### Program Committee Chair

2019-2020 The 2020 USENIX Annual Technical Conference (ATC 2020) program committee co-chair.

| | |
|---|---|
| 2015 | The 13th USENIX Conference on File and Storage Technologies (FAST 2015) program committee co-chair. |
| 2012 | The 5th Israeli Experimental Systems Conference (SYSTOR 2012), program committee co-chair. |
| 2010 | The First Usenix Workshop on Sustainable Information Technology (SustainIT 2010), program committee co-chair. |
| 2008 | The First File-systems and Storage Benchmarking workshop, program chair (hosted at the Storage Systems Research Center at the University of California at Santa Cruz). |
| 2006 | ACM Storage Security and Survivability (StorageSS) workshop, program committee co-chair. |
| 2005 | Usenix Annual Conference 2005, Invited Talks program co-chair |
| 2004 | Usenix Security 2004, Works-in-Progress program chair |
| 2004 | Usenix Security 2004, Poster presentations program chair |
| 2003 | USENIX FreeNIX 2003 Annual Conference, program chair |

**Panels**

| | |
|---|---|
| Oct 2021 | NSF CAREER review panel |
| June 2013 | Panelist, EMC University Day, "University/Industry Relationships" |
| Jan 2012 | NSF Sustainability Research Network (SRN) program |
| May 2010 | Department of Energy, Computational and Technology Research program |
| Feb 2009 | Panel moderator, The First Usenix Workshop on Sustainable Information Technology (SustainIT 2010), "The Present and Future of Sustainability R&D" |
| Oct 2009 | Panelist, Workshop on Hot Topics in Storage and File Systems (HotStorage'09), "Rethinking File Systems" |
| Oct 2009 | NSF CAREER (CSR+CNS) review panel |
| Apr 2007 | NSF Computer Systems Research (CSR) Parallel and Distributed Operating Systems (PDOS) review panel |
| Aug 2004 | NSF CyberTrust PI meeting panelist, "Software Assurance," Pittsburgh, PA |
| Aug 2004 | Workshop on Information Assurance Education, Stony Brook University (WIAED 2004), panel chair, "How to establish your own IA Curriculum" |
| Apr 2004 | NSF Distributed Systems and Compilers (DSC) review panel |
| Apr 2001 | NSF ITR Operating Systems and Compilers (OSC) review panel, small grants |

**Editor-in-Chief**

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|---|---|
| Nov 2012–present | Editor-in-Chief, ACM Transactions on Storage (TOS). `https://dl.acm.org/journal/tos/` |

**Editor**

| | |
|---|---|
| 2014 | Editorial Board, USENIX Journal of Education in System Administration (JESA). `www.usenix.org/jesa/` |
| Aug 2009–2012 | Associate Editor, ACM Transactions on Storage (TOS). `https://tos.acm.org/` |
| Jul 2001–Jan 2009 | Bulletin Editor, Webmaster, and lists maintainer for IEEE Technical Committee on Operating Systems and Application Environments (TCOS). `www.tcos.org`. |

## Book Reviews

| | |
|---|---|
| Summer 2014 | Technical reviewer for *The Design and Implementation of the FreeBSD Operating System (2nd Edition)*, Addison-Wesley, 2014, by Marshall Kirk McKusick, George Neville-Neil, and Robert N.M. Watson. |
| Summer 2005 | Technical reviewer for *Understanding the Linux Kernel*, O'Reilly, 3rd ed., by P. Bovet and M. Cesati |
| Summer 2005 | Technical reviewer for *The Design and Implementation of the FreeBSD Operating System*, Addison-Wesley, 2005, by Marshall Kirk McKusick and George V. Neville-Neil (two chapters) |
| Summer 2002 | Technical reviewer for *Understanding the Linux Kernel*, O'Reilly, 2nd ed., by P. Bovet and M. Cesati |
| January 1994 | Chapter 14 in *UNIX Systems for Modern Architectures* by Curt Schimmel (Addison-Wesley, 1994) |

## Program Committee Member

| | |
|---|---|
| 2019 | The 2019 USENIX Annual Technical Conference (ATC 2019), Renton, WA. |
| 2018 | The 10th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage '18), Boston, MA. |
| 2018 | The 9th Annual Non-Volatile Memories Workshop (NVME 2018), San Diego, CA. |
| 2017 | The 4th FAST/Linux Summit, Santa Clara, CA. |
| 2016–2017 | The 15th USENIX Conference on File and Storage Technologies (FAST '17), Santa Clara, CA. |
| 2016 | The 3rd FAST/Linux Summit, Santa Clara, CA. |
| 2015 | The 2nd FAST/Linux Summit, Santa Clara, CA. |
| 2014 | USENIX 2nd Summit for Educators in System Administration (SESA 2014), Seattle, Washington (co-located with LISA'14). |
| 2014 | The 7th Israeli ACM Experimental Systems Conference (ACM SYSTOR 2014), Haifa, Israel. |
| 2014 | The 12th USENIX Conference on File and Storage Technologies (FAST '14), Santa Clara, CA. |
| 2014 | The 1st FAST/Linux Summit, Santa Clara, CA. |
| 2013 | USENIX 1st Summit for Educators in System Administration (SESA 2013), Seattle, Washington (co-located with LISA'13). |

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|---|---|
| 2013 | Interactions of NVM/Flash with Operating-Systems and Workloads Workshop (INFLOW 2013), Farmington, PA (co-located with SOSP'13). |
| 2013 | International Conference on Parallel and Distributed Systems (ICPADS 2013), Seoul, Korea. |
| 2011 | Operating System Support for Next Generation Large Scale NVRAM (NVRAMOS'11), Jeju Island, South Korea. |
| 2011 | The 4th Israeli Experimental Systems Conference (SYSTOR 2011), Haifa, Israel. |
| 2011 | The 27th IEEE Symposium on Massive Storage Systems and Technologies (MSST2011), Research Track. Colorado. |
| 2011 | The 2011 USENIX Annual Technical Conference |
| 2010 | The 26th IEEE Symposium on Massive Storage Systems and Technologies (MSST2010), Research Track. Incline Village, Nevada. |
| 2010 | The 3rd Israeli Experimental Systems Conference (SYSTOR 2010), Haifa, Israel. |
| 2009 | The 21st International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2009). |
| 2009 | The first Usenix workshop on the theory and practice of provenance (TAPP '09). |
| 2009 | The 2009 ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 2009), New York, NY. |
| 2009 | The 2nd Israeli Experimental Systems Conference (SYSTOR 2009), Haifa, Israel. |
| 2008 | Fifth USENIX Conference on File and Storage Technologies (FAST '08), San Jose, CA. |
| 2007 | The Third ACM International Workshop on Storage Security and Survivability (StorageSS 2007), Alexandria, VA |
| 2007 | Fifth USENIX Conference on File and Storage Technologies (FAST '07) |
| 2006 | CCGrid Cluster Security workshop (in conjunction with CCGrid 2006, the Sixth IEEE/ACM International Symposium on Cluster Computing and the Grid), Singapore, Korea. |
| 2005 | The 3rd International IEEE Security in Storage Workshop (co-sponsored by Usenix), San Francisco, CA |
| 2005 | The First ACM International Workshop on Storage Security and Survivability (StorageSS), "The Paradigm Shift to Info-Centric Protection," Fairfax, VA |
| 2004–2005 | CCGrid Cluster Security workshop (in conjunction with CCGrid 2005, the Fifth IEEE/ACM International Symposium on Cluster Computing and the Grid), Cardiff, UK |
| 2004 | Workshop on Information Assurance Education, Stony Brook University (WIAED 2004), organizer |
| 2002 | USENIX FreeNIX 2002 Annual Conference |
| 2001 | First USENIX Conference on File and Storage Technologies (FAST '02) |

## Session Chair

| | |
|---|---|
| Oct 2020 | Keynote by Richardo Biancini, the 13th ACM International System and Storage Conference |
| Jul 2019 | Co-chair, ACM Workshop on on Hot Topics in Storage and File Systems (HotStorage), "File Systems" |
| Jan 2015 | The annual NSF Secure and Trustworthy Computing (SaTC) program PI meeting (SaTC-PI 2015), "Benchmarking and workloads" |
| Feb 2014 | The 12th USENIX Conference on File and Storage Technologies (FAST '14), "Performance and Efficiency" |
| June 2011 | The 2011 Usenix Annual Technical Conference (Usenix ATC '11), "Storage Deduplication" |
| July 2013 | The 6th Israeli Experimental Systems Conference (SYSTOR '13), "Flash Optimization" |
| May 2011 | The 4th Israeli Experimental Systems Conference (ACM SYSTOR '11), "Adaptation and performance" |
| May 2009 | The 2nd Israeli Experimental Systems Conference (ACM SYSTOR '09), "Deduplication" |
| Feb 2009 | The first Usenix workshop on the theory and practice of provenance (TAPP '09) |
| May 2009 | Fifth USENIX Conference on File and Storage Technologies (FAST '07), "Beyond the Machine Room" |
| Nov 2005 | ACM International Workshop on Storage Security and Survivability (StorageSS), "Cryptographic Storage Security" |
| | Usenix Security 2004, Works-in-Progress session chair |
| Aug 2004 | Usenix Security 2004, Works-in-Progress session chair |
| Aug 2004 | Usenix Security 2004, Poster presentations session chair |
| Jun 2002 | USENIX FreeNIX Annual Conference, "File Systems" |
| Jun 2001 | USENIX FreeNIX Annual Conference, "Scripting" |

## Referee

| | |
|---|---|
| Feb 2022 | USENIX FAST 2022 |
| Nov 2020 | ACM Transactions on Storage (TOS) |
| Oct 2018 | IEEE Transactions on Parallel and Distributed Systems (TDPS) |
| Aug 2017 | ACM Transactions on Storage (TOS) |
| 2016 | Runtime Verification (RV) 2016 |
| 2011 | Sustainable Computing Informatics and Systems journal |
| Nov 2010 | ACM SIGMOD 2010 |
| Oct 2010 | IEEE Internet Computing |

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| Jan 2010 | ACM Transactions on Computers (TOCS) |
| Dec 2009 | IEEE Transactions on Parallel and Distributed Systems (TPDS) |
| Feb 2009 | USENIX FAST 2009 |
| Feb 2007 | USENIX Annual conference 2007 |
| Jan 2007 | Sigmetrics 2007 |
| Jul 2006 | Elsevier's Information Sciences journal |
| Feb 2006 | USENIX Annual conference 2006 |
| Aug 2005 | USENIX FAST 2005 |
| Aug 2004–present | ACM Transactions on Storage (TOS) journal |
| Jun 2004 | USENIX OSDI 2004 |
| Nov 2003 | USENIX FAST 2004 |
| Dec 2002 | USENIX FREENIX 2003 |
| Jun 2002 | USENIX OSDI 2002 |
| May 2002 | ACM Mobile Networks and Applications (MONET) |
| Mar 2002 | 16th Annual ACM International Conference on Supercomputing (ICS) |
| Mar 2002 | LCTES/SCOPES '02: ACM SIGPLAN Joint Conference on Languages, Compilers, and Tools for Embedded Systems and Software and Compilers for Embedded Systems. |
| Jan 2002 | USENIX FreeNIX Annual Conference |
| Mar 2001 | 8th Workshop on Hot Topics in Operating Systems (HotOS-VIII) |
| Jan 2001 | USENIX Annual Conference |
| Jan 2001 | USENIX FreeNIX Annual Conference |
| May 2000 | USENIX LISA 14 |
| Dec 2000 | USENIX Annual Conference |
| May 1999 | USENIX LISA 13 |
| May 1999 | ACM Twelfth Annual Symposium on User Interface Software and Technology (UIST '99) |
| Mar 1996 | 2nd International Mobile Computing Conference |
| 1994 | Trends in Software: Software Configuration Management |

## Committee Service

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| 2021–present | Tiger Team lead, "Data Storage, Data Management, Distributed Ledger Technologies, Cybersecurity, and Biometrics," Stony Brook University. |
| 2020–present | Steering Committee member, USENIX Annual Technical Conference (USENIX ATC) |
| 2020–present | Steering Committee member, ACM Workshop on on Hot Topics in Storage and File Systems (HotStorage) |

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| 2021–2022 | Co-Chair, President's "One Campus IT Operations" (OCITO) working group, Stony Brook University. |
| 2017–2020 | Member, Provost Committee on Faculty Mentorship, Stony Brook University |
| 2017 | Member, ad-hoc SL-2 hiring committee for CS Staff Assistant, Computer Science Department, Stony Brook University |
| 2016–2020 | Member, STRIDE project advisory committee, Institute for Advanced Computational Science (IACS) and Computer Science Department, Stony Brook University |
| 2016–2019 | Chair, Research and IT/Building Operations committee, Computer Science Department, Stony Brook University (note: also official mentor to all junior CS faculty). |
| 2016-2017 | Member, ad-hoc hiring committee for CEAS Grant Writer, College of Engineering and Applied Science, Stony Brook University |
| 2016 | Member, ABET funding cmte, College of Engineering and Applied Science, Stony Brook University |
| 2015–present | Steering Committee member, USENIX Filesystem and Storage Technologies Conference (USENIX FAST) |
| 2014 | Member, Executive committee, Computer Science Department, Stony Brook University |
| 2014 | Member, ad-hoc committee for selection of departmental award, Computer Science Department, Stony Brook University |
| 2014 | Member, Provost's Outstanding Lecturer Selection Committee, Stony Brook University |
| 2013 | Member, Provost's Interdisciplinary Faculty Cluster Selection Committee, Stony Brook University |
| 2013–present | Undergraduate Curriculum Committee, Computer Science Department, Stony Brook University |
| 2013–present | Member, Provost's Massive Open Online Courses (MOOCS) Task Force, Stony Brook University |
| 2012–present | Steering Committee member, The Israeli ACM Experimental Systems Conference (ACM SYSTOR) |
| 2011–2015 | Co-Chair, IT Operations committee, Computer Science Department, Stony Brook University |
| 2011–present | Member, University Senate Information Technology Committee, Stony Brook University |
| 2011–present | Member, President's Information Technology Steering Committee on Email and Collaboration, Stony Brook University |
| 2006–2011 | Director of IT Operations, Computer Science Department, Stony Brook University |
| 2010–present | Advanced Energy Research and Technology Center (AERTC), Center Director Search Committee member, Stony Brook University |

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| 2012 | Member, Grant Writer Recruiting committee, Computer Science Department, Stony Brook University |
| 2011 | Staff Recruiting committee chair (Windows Server administrator), Computer Science Department, Stony Brook University |
| 2010 | Staff Recruiting committee chair (Unix/Networking administrator), Computer Science Department, Stony Brook University |
| 2010 | Departmental 5-year Strategic Planning Committee member, Computer Science Department, Stony Brook University |
| 2010 | Faculty Recruiting Committee, Computer Science Department, Stony Brook University |
| 2010 | Staff Recruiting committee member (Network Administrator), CEWIT Center, Stony Brook University |
| 2010 | President's Teaching Excellence Award Selection Committee, Stony Brook University |
| 2009 | Staff Recruiting committee chair (Windows client administrator), Computer Science Department, Stony Brook University |
| 2009 | Staff Recruiting committee chair (CVC manager), Computer Science Department, Stony Brook University |
| 2009–present | Advanced Energy Research and Technology Center (AERTC), scientific advisor board member, Stony Brook University |
| 2009 | President's Teaching Excellence Award Selection Committee, Stony Brook University |
| 2007–2008 | Staff Recruiting committee chair (webmaster), Computer Science Department, Stony Brook University |
| 2008–present | New CS building committee, Computer Science Department, Stony Brook University |
| 2007 | Staff Recruiting committee chair (Unix administrator), Computer Science Department, Stony Brook University |
| 2007–2010 | Co-Chair, IT Operations committee, Computer Science Department, Stony Brook University |
| 2006–present | Center of Excellence in Wireless and Information Technologies (CEWIT) faculty advisory board member, Computer Science Department, Stony Brook University |
| 2006–2007 | Chair, Resources and Facilities sub-committee, part of an 8-year departmental review committee. Computer Science Department, Stony Brook University. |
| 2003–present | Visibility (Ranking) committee, Computer Science Department, Stony Brook University |
| 2003–present | Graduate Committee, Computer Science Department, Stony Brook University |
| 2003–present | Permanent Graduate Quals committee, Computer Science Department, Stony Brook University |
| 2003–present | Center of Excellence in Wireless and Information Technologies (CEWIT) committee, Computer Science Department, Stony Brook University |

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|---|---|
| 2002–present | Web Site Design committee, Computer Science Department, Stony Brook University |
| 2002–present | Operations Committee, Computer Science Department, Stony Brook University |
| 2001–2006 | Faculty Recruiting Committee, Computer Science Department, Stony Brook University |
| 2002–2006 | Graduate Recruiting Poster Committee, Computer Science Department, Stony Brook University |
| 2005 | SFS Program Director Recruiting committee, Computer Science Department, Stony Brook University |
| 2004 | Staff Recruiting committee, Computer Science Department, Stony Brook University |
| 2004 | Undergraduate Curriculum Review ad-hoc committee, Computer Science Department, Stony Brook University |
| 2003 | PI Award Interface (PIAI) Review committee, Stony Brook University |
| 2003 | Graduate Brochure committee, Computer Science Department, Stony Brook University |
| Spring 2002 | Graduate Student Admissions committee, Computer Science Department, Stony Brook University |
| 2002–2003 | Graduate Quals Revisions committee, Computer Science Department, Stony Brook University |
| Spring 2002 | Graduate Student Admissions Committee, Computer Science Department, Stony Brook University |
| Fall 2001 | Undergraduate Curriculum Committee, Computer Science Department, Stony Brook University |
| Fall 2001 | Domestic Graduate Student Recruiting Committee, Computer Science Department, Stony Brook University |
| Fall 2001 | Quality of Life Committee, Computer Science Department, Stony Brook University |
| 2001 | Ph.D. and M.S. Recruiting Committee, Computer Science Department, Stony Brook University |
| 1998–2000 | Ph.D. Committee, Columbia University |
| 1998–1999 | Ph.D. Admissions Committee, Columbia University |
| 1990–1999 | Facilities Committee, Columbia University |

## Ph.D. Dissertation Defense Committee

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|---|---|
| Dec 2021 | *Appearance Aware Visualization of High Dimensional Data*, Jenny Hyunjung Lee, Computer Science Department, Stony Brook University. |
| Aug 2020 | Committee Chair, Muhammad Wajahat, *Cost-Efficient Dynamic Management of Cloud Resources via Supervised Learning*, Computer Science Department, Stony Brook University. |
| Jul 2019 | Committee chair, *Analytical Approaches for Dynamic Scheduling in Cloud Environments*, Seyyed Ahmad Javadi, Computer Science Department, Stony Brook University. |

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|---|---|
| Jan 2019 | Adviser, *A Practical Auto-Tuning Framework for Storage Systems*, Zhen Cao, Computer Science Department, Stony Brook University. |
| Oct 2017 | *Optimizing System Software with $B^{\varepsilon}$ Trees*, William Jannen, Computer Science Department, Stony Brook University. |
| May 2017 | Committee Chair, Yifeng Sun, *Protection Mechanisms for Virtual Machines on Virtualized Servers*, Computer Science Department, Stony Brook University. |
| Apr 2017 | Adviser, *Kurma: Efficient and Secure Multi-Cloud Storage Gateways for Network-Attached Storage*, Ming Chen, Computer Science Department, Stony Brook University. |
| Sep 2014 | Committee Chair, *Achieving Regulatory Compliance in Data Management*, Sumit Bajaj, Computer Science Department, Stony Brook University. |
| May 2014 | Adviser, *GreenDM: A Versatile Tiering Hybrid Drive for the Trade-Off Evaluation of Performance, Energy, and Endurance*, Zhichao Li, Computer Science Department, Stony Brook University. |
| May 2014 | Committee Chair, *Efficient Implementation Techniques for Block-Level Cloud Storage Systems* Dilip Simha, Computer Science Department, Stony Brook University. |
| Dec 2013 | Adviser, *Multi-dimensional Workload Analysis and Synthesis for Modern Storage Systems*, Vasily Tarasov, Computer Science Department, Stony Brook University. |
| May 2012 | Committee Chair, *Practical Oblivious Outsourced Data Processing*, Peter Williams, Computer Science Department, Stony Brook University. |
| Jan 2012 | Adviser, *Efficient, Scalable, and Versatile Application and System Transaction Management for Direct Storage Layers*, Richard P. Spillane, Computer Science Department, Stony Brook University. |
| Aug 2009 | *Virtualization Mechanisms for Mobility, Security and System Administration*, Shaya Potter, Computer Science Department, Columbia University. |
| Aug 2009 | Adviser, *Flexible Debugging with Controllable Overhead*, Sean Callanan, Computer Science Department, Stony Brook University. |
| Sep 2008 | Committee chair, *Repairable File and Storage Systems*, Ningning Zhu, Computer Science Department, Stony Brook University. |
| Aug 2008 | Adviser, *Analyzing Root Causes of Latency Distributions*, Avishay Traeger, Computer Science Department, Stony Brook University. |
| Aug 2008 | *Programmable Ethernet Switches and Their Applications*, Srikant Sharma, Computer Science Department, Stony Brook University. |
| May 2008 | Committee chair, *Practical Information Flow Based Techniques to Safeguard Host Integrity"*, Weiqing Sun, Computer Science Department, Stony Brook University. |
| Feb 2008 | Adviser, *End-to-End Abstractions for Application-Aware Storage*, Gopalan Sivathanu (advisee), Computer Science Department, Stony Brook University. |
| Dec 2006 | Adviser, *Versatile, Portable, and Efficient File System Profiling*, Nikolai Joukov (advisee), Computer Science Department, Stony Brook University. |
| Jul 2006 | Committee chair, *Availability, Fairness, and Performance Optimization in Storage Virtualization Systems*, Gang "Jason" Peng, Computer Science Department, Stony Brook |

University.

Jun 2006 — *Implementation Techniques for Scalable, Secure and QoS-Guaranteed Enterprise-Grade Wireless LANs*, Fanglu Guo, Computer Science Department, Stony Brook University.

May 2006 — Adviser, *Extending ACID Semantics to the File System via* `ptrace`, Charles P. Wright (advisee), Computer Science Department, Stony Brook University.

Aug 2002 — *Authoring, Compression, and Playback of Active Video Content*, Anindya Neogi, Computer Science Department, Stony Brook University.

**M.S. Thesis Defense Committee**

May 2021 — *Transfer Learning Techniques for Sequence Labeling in Network File System Specifications*, Amanpreet Singh, Computer Science Department, Stony Brook University.

Dec 2016 — Adviser, *To FUSE or not to FUSE? Analysis and Performance Characterization of the FUSE User-Space File System Framework*, Bharath Kumar Reddy Vangoor, Computer Science Department, Stony Brook University.

May 2015 — Adviser, *Finding the Right Balance: Security vs. Performance with Network Storage Systems*, Arun Olappamanna Vasudevan, Computer Science Department, Stony Brook University.

May 2012 — Adviser, *A Context Aware Block Layer: The Case for Block Layer Deduplication*, Amar Mudrankit, Computer Science Department, Stony Brook University.

May 2012 — Adviser, *From Tuples to Files: a Fast Transactional System Store and File System*, Pradeep Shetty, Computer Science Department, Stony Brook University.

December 2010 — *TRACECUT: a mechanism of providing history based pointcuts on top of InterAspect*, Ketan Dixit, Computer Science Department, Stony Brook University.

May 2010 — Adviser, *Stopping Data Races Using Redflag*, Abhinav Duggal, Computer Science Department, Stony Brook University.

May 2010 — Adviser, *Optimizing Energy and Performance for Server-Class File System Workloads*, Priya Sehgal, Computer Science Department, Stony Brook University.

May 2010 — *Model Checking the Kaminsky DNS Cache-Poisoning Attack Using PRISM*, Tushar Sudas Deshpande, Computer Science Department, Stony Brook University.

May 2010 — Committee chair, *LFSM (Log Structured Flash Storage Manager)* Gautham Meruva, Computer Science Department, Stony Brook University.

Apr 2009 — Adviser, *The Visual Development of GCC Plug-ins with GDE* Daniel J. Dean, Computer Science Department, Stony Brook University.

Apr 2009 — Adviser, *Energy and Performance Evaluation of Lossless File Data Compression on Computer Systems* Rachita Kothiyal, Computer Science Department, Stony Brook University.

May 2007 — Adviser, *PLEASE: Policy Language for Easy Administration of SELinux*, David P. Quigley, Computer Science Department, Stony Brook University.

Jun 2006 — *Towards the Minimal TCP Offload Architecture*, Lakshmi Kumar Tiruppukuzhi, Computer Science Department, Stony Brook University.

Jun 2006 *An Approach to Protect System Integrity from Untrusted Applications*, Gaurav Poothia, Computer Science Department, Stony Brook University.

Dec 2005 Adviser, *Storage Virtualization with a Stackable File System*, Sunil Satnur, Computer Science Department, Stony Brook University.

Dec 2004 Adviser, *File System Extensibility and Reliability Using an in-Kernel Databases System*, Aditya Kashyap, Computer Science Department, Stony Brook University.

Aug 2004 Adviser, *Versatile File System Tracing with Tracefs*, Akshat Aranya, Computer Science Department, Stony Brook University.

Mar 2004 *System and Network Management Using State Machines*, Mohan-Krishna Channa-Reddy, Computer Science Department, Stony Brook University.

Dec 2003 Adviser, *Versionfs: A Versatile and User-Oriented Versioning File System*, Kiran-Kumar Muniswamy-Reddy (advisee), Computer Science Department, Stony Brook University.

Aug 2003 *WattProbe: Software-Based Empirical Extraction of Hardware Energy Models*, Manish Prasad, Computer Science Department, Stony Brook University.

Jun 2003 Adviser, *A System for Improving Application Performance Through System Call Composition*, Amit Purohit, Computer Science Department, Stony Brook University.

## Ph.D. Thesis-Proposal (Prelim) Committee

Jun 2022 Adviser, *Using Machine Learning to Improve Operating Systems' I/O Subsystems*, Ibrahim "Umit" Akgun, Computer Science Department, Stony Brook University.

Apr 2022 *Exploring Large Parameter Spaces with Machine Learning and Data Visualization*, Anjul Tyagi, Computer Science Department, Stony Brook University.

Apr 2019 *Cost-Efficient Dynamic Management of Cloud Resources through Supervised Learning*, Muhammad Wajahat, Computer Science Department, Stony Brook University.

Dec 2018 *Predicting the Future of Archival Storage Using Simulation*, James Byron, Computer Science Department, UC Santa Cruz.

Nov 2018 Committee chair, *Analytical Approaches for Dynamic Scheduling in Cloud Environments*, Seyyed Ahmad Javadi, Computer Science Department, Stony Brook University.

Jun 2018 Committee chair, *Appearance Aware Visualization of High Dimensional Data*, Jenny Hyunjung Lee, Computer Science Department, Stony Brook University.

Apr 2018 Adviser, *A Practical, Real-Time Auto-Tuning Framework for Storage Systems*, Zhen Cao, Computer Science Department, Stony Brook University.

Apr 2017 *Optimizing System Software with $B^{\varepsilon}$ Trees*, William Jannen, Computer Science Department, Stony Brook University.

Nov 2015 Adviser, *KURMA: Geo-Distributed Secure Middlewares for Cloud-Backed Network Attached Storage*, Ming Chen, Computer Science Department, Stony Brook University.

Dec 2014 *Economic Modeling of Long-Term Digital Storage*, Preeti Gupta, Computer Science Department, the University of California at Santa Cruz.

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|---|---|
| Oct 2013 | *Achieving Regulatory Compliance in Data Management*, Sumit Bajaj, Computer Science Department, Stony Brook University. |
| Aug 2013 | Committee chair, *Implementation Techniques for Software-Defined Distributed Storage Systems*, Dilip Simha, Computer Science Department, Stony Brook University. |
| May 2013 | Adviser, *System-Aware Resource Scheduling for Performance, Energy, and Reliability in Tiered Storage Systems*, Zhichao Li, Computer Science Department, Stony Brook University. |
| Apr 2013 | Adviser, *Multi-dimensional Workload Analysis and Synthesis for Modern Storage Systems*, Vasily Tarasov, Computer Science Department, Stony Brook University. |
| Jan 2012 | Adviser, *Runtime Verification of Kernel-Level Concurrency Using Compiler-Based Instrumentation*, Justin Seyster, Computer Science Department, Stony Brook University. |
| Aug 2011 | Adviser, *Efficient, Scalable, and Versatile Application and System Transaction Management for Direct Storage Layers* Richard P. Spillane, Computer Science Department, Stony Brook University. |
| May 2011 | *Practical Oblivious Outsourced Data Processing* Peter Williams, Computer Science Department, Stony Brook University. |
| Dec 2008 | *Organizing, Indexing, and Searching Large-Scale File Systems* Andrew Leung, Computer Science Department, the University of California at Santa Cruz. |
| Mar 2008 | Adviser, *Remote Debugging with Controllable Overhead* Sean Callanan, Computer Science Department, Stony Brook University. |
| Feb 2008 | Adviser, *Analyzing Root Causes of Latency Distributions*, Avishay Traeger, Computer Science Department, Stony Brook University. |
| Oct 2007 | *Practical Information Flow Based Techniques to Safeguard Host Integrity"*, Weiqing Sun, Computer Science Department, Stony Brook University. |
| Aug 2007 | Committee chair, *OS-level Virtualization and Its Applications*, Yang Yu, Computer Science Department, Stony Brook University. |
| May 2007 | Adviser, *End-to-End Abstractions for Application-Aware Storage*, Gopalan Sivathanu, Computer Science Department, Stony Brook University. |
| Jun 2006 | *Building Enterprise-Grade Wireless LAN with High Mobility, Capacity and Security*, Fanglu Guo, Computer Science Department, Stony Brook University. |
| Apr 2006 | Adviser, *Versatile, Portable, and Efficient File System Profiling*, Nikolai Joukov, Computer Science Department, Stony Brook University. |
| Jan 2006 | Adviser, *Extending ACID Semantics to the File System*, Charles P. Wright, Computer Science Department, Stony Brook University. |
| Aug 2005 | Committee chair, *Repairable File and Storage Systems*, Ningning Zhu, Computer Science Department, Stony Brook University. |
| Dec 2004 | Committee chair, *Programmable Ethernet switch networks and their applications*, Srikant Sharma, Computer Science Department, Stony Brook University. |
| Sep 2004 | Committee chair, *Availability Support and Performance Optimization in Stonehenge*, Gang "Jason" Peng, Computer Science Department, Stony Brook University. |

Mar 2002 *Stonehenge: A High Performance Virtualized Storage Cluster With QoS Guarantees*, Lan Huang, Computer Science Department, Stony Brook University.

Oct 2001 *A System for Collaborative Web Resource Categorization and Ranking*, Maxim Lifantsev.

May 2001 *Authoring, Compression, and Playback of Active Video Content*, Anindya Neogi, Computer Science Department, Stony Brook University.

**Ph.D. Research Proficiency Exam (RPE) Committee**

Apr 2022 Committee chair, *Optimizing Near-Data Processing for Spark*, Sri Pramodh Rachuri, Computer Science Department, Stony Brook University.

Jan 2022 Adviser, *Model-Checking Support for File System Development*, Yifei Liu, Computer Science Department, Stony Brook University.

Aug 2020 *An Experimental Evaluation of Cache-Adaptive Algorithms*, Abiyaz Chowdhury, Computer Science Department, Stony Brook University.

May 2019 Adviser, *Re-Animator: Versatile High-Fidelity System-Call Tracing and Replaying* Ibrahim "Umit" Akgun, Computer Science Department, Stony Brook University.

Aug 2018 Committee chair, *Reducing tail latency in web applications by addressing variability in service times*, Amoghavarsha Suresh, Computer Science Department, Stony Brook University.

Apr 2018 Committee chair, *Realizing an Elastic Memcached via Cached Data Migration*, Ubaid Ullah Hafeez, Computer Science Department, Stony Brook University.

Sep 2016 Dynamic Interference-Aware Load Balancing, Seyyed Ahmad Javadi, Computer Science Department, Stony Brook University.

May 2016 Committee chair, *Leveraging Machine Learning for Black-Box Autoscaling*, Muhammad Wajahat, Computer Science Department, Stony Brook University.

Apr 2016 *Spatial Big Data Management and Analytics on Cloud environments and modern computing infrastructures* Hoang Vo, Computer Science Department, Stony Brook University.

Jan 2016 Adviser, *Parametric Optimization of Storage Systems* Zhen Cao, Computer Science Department, Stony Brook University.

Dec 2015 Adviser, *Design and Implementation of an Open-Source Deduplication Platform for Research* Sonam Mandal, Computer Science Department, Stony Brook University.

Sep 2012 *The Design and Application of Content Addressable Storage Systems*, William Jannen Computer Science Department, Stony Brook University.

Aug 2012 Committee chair, *Interaction for Visualization of Multidimensional Data*, Puripant Ruchikachorn, Computer Science Department, Stony Brook University.

Nov 2011 Committee chair, *Trusted Hardware in Secure Data Management*, Sumit Bajaj, Computer Science Department, Stony Brook University.

Sep 2011 Committee chair, *Isolated and Efficient Execution of Unmodified Network Device Drivers*, Yifeng Sun, Computer Science Department, Stony Brook University.

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| Sep 2011 | Committee chair, *The Art of Data Deduplication*, DilipSimha N M, Computer Science Department, Stony Brook University. |
| Sep 2011 | Adviser, *Power and Performance in Compression Systems: A Control Theoretical Approach with Evaluation*, Zhichao Li, Computer Science Department, Stony Brook University. |
| Sep 2011 | Committee chair, *Isolated and Efficient Execution of Unmodified Network Device Drivers*, Sun Yifeng, Computer Science Department, Stony Brook University. |
| Sep 2011 | *Defensive Techniques for Untrustworthy Operating Systems*, Committee chair, Rui Qiao, Computer Science Department, Stony Brook University. |
| Aug 2011 | *Computational Modeling and Analysis of Cardiac Arrhythmia*, Abhishek Murthy, Computer Science Department, Stony Brook University. |
| Feb 2010 | Adviser, *An End-to-End Performance Evaluation of NFSv4 Implementations*, Vasily Tarasov, Computer Science Department, Stony Brook University. |
| Aug 2009 | *Attacks and Defenses: Unix File-System race conditions*, Xiang Cai, Computer Science Department, Stony Brook University. |
| Mar 2008 | Adviser, *Techniques for Visualizing Software Execution*, Justin Seyster, Computer Science Department, Stony Brook University. |
| May 2006 | Committee chair, *Challenges of Long-Term Digital Archiving*, Maohua Lu, Computer Science Department, Stony Brook University. |
| Feb 2006 | *A Survey of Program Transformation Languages and Systems*, Michael Gorbovitski, Computer Science Department, Stony Brook University. |
| Jun 2005 | *Peer to Peer File Download and Streaming*, Gang Wu, Computer Science Department, Stony Brook University. |
| May 2005 | Adviser, *Debugging and Optimizing Systems With Runtime Instrumentation*, Sean Callanan, Computer Science Department, Stony Brook University. |
| May 2005 | Adviser, *File System Benchmarking: Fallacies and Pitfalls*, Avishay Traeger, Computer Science Department, Stony Brook University. |
| May 2005 | Adviser, *On the Role of Static Analysis in Operating System Checking and Runtime Verification*, Abhishek Rai, Computer Science Department, Stony Brook University. |
| May 2005 | Adviser, *Ensuring Data Integrity in Storage: Techniques and Applications*, Gopalan Sivathanu, Computer Science Department, Stony Brook University. |
| Feb 2005 | *A Survey on Virtualization Techniques*, Susanta Nanda, Computer Science Department, Stony Brook University. |
| Sep 2004 | *Enterprise Digital Rights Management: Solutions against Information Theft by Insiders*, Yang Yu, Computer Science Department, Stony Brook University. |
| May 2004 | Adviser, *Operating System Support for Extensible Secure File Systems*, Charles P. Wright, Computer Science Department, Stony Brook University. |
| Feb 2004 | *Traffic Analysis: From Stateful Firewall to Network Intrusion Detection System*, Fanglu Guo, Computer Science Department, Stony Brook University. |

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| Feb 2004 | *Damage Recovery from Malicious Code and Operator Errors*, Weiqing Sun, Computer Science Department, Stony Brook University. |
| Sep 2003 | Adviser, *Internet Worms as Internet-Wide Threat*, Nikolai Joukov, Computer Science Department, Stony Brook University. |
| Mar 2003 | *Cache Oblivious Algorithms: Theory and Practice*, Piyush Kumar, Computer Science Department, Stony Brook University. |
| Jan 2003 | Committee chair, *CDN: Content Distribution Network*, Gang "Jason" Peng, Computer Science Department, Stony Brook University. |
| Aug 2001 | *Pattern Based Intrusion Detection Systems*, Prem Uppuluri, Computer Science Department, Stony Brook University. |

## Other One-Time Committee Service

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|---|---|
| 2019 | Office of Vice-President for Research, Seed Grant review committee Bi-annual Awards committee, Stony Brook University. |
| Aug 2012 | Bi-annual Awards committee, Computer Science Department, Stony Brook University. |
| Nov 2011 | Member, Steering Committee on High-Performance Computing, Stony Brook University and Brookhaven National Labs. |
| Oct 2010 | Annual Merit Raise committee, Computer Science Department, Stony Brook University. |
| Aug 2010 | Bi-annual Awards committee, Computer Science Department, Stony Brook University. |
| Oct 2009 | Annual Merit Raise committee, Computer Science Department, Stony Brook University. |
| Sep 2008 | Annual Merit Raise committee, Computer Science Department, Stony Brook University. |
| Sep 2007 | Annual Merit Raise committee, Computer Science Department, Stony Brook University. |
| Jan 2007 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |
| Jul 2006 | Bi-annual Awards committee, Computer Science Department, Stony Brook University. |
| Apr 2006 | Judge, *Compilers* session. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Sep 2005 | Annual Merit Raise committee, Computer Science Department, Stony Brook University. |
| Aug 2005 | Ad-hoc Steering Committee on Strategic Planning, Computer Science Department, Stony Brook University. |
| May 2004 | Judge, *Security* session. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| May 2004 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |

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|---|---|
| Jan 2004 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |
| May 2003 | Judge, *Security* session. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Oct 2003 | Ph.D. qualifying exam chair (Hardware exam), Computer Science Department, Stony Brook University. |
| Oct 2003 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |
| May 2003 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |
| May 2002 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |
| May 2001 | Examiner for CS Ph.D. Qualifying Exams, Computer Science Department, Stony Brook University. |

## Other Departmental Service

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|---|---|
| 2008–present | Course Coordinator, Systems Administration, (ISE-311) |
| 2003–present | Course Coordinator, Introduction to Programming in C (CSE-130) |
| 2002–present | Course Coordinator, Advanced Systems Programming in Unix/C (CSE-376) |
| 2001–present | Course Coordinator, Operating Systems (CSE-506) |
| 2003–2005 | Course Coordinator, Intermediate Programming in C and C++ (CSE-230) |

## Community Work

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|---|---|
| Nov 2008 | "How Computers Work," guest speaker at Mount Elementary 4th grade (teacher: Jo-Ann Hudecek), Stony Brook Three Village School District, Stony Brook, NY. |
| 2003 | Stony Brook Child Care Services Inc. (SBCCSI), fund-raising committee member |
| 2002–present | Faculty sponsor of the Stony Brook Linux Users Group (SBLUG) |
| 1997–present | Maintainer of FiST, a stackable file system template system |
| 1992–present | Maintainer of Amd, the Berkeley Automounter (am-utils) |

## Shepherding

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|---|---|
| 2016–2017 | The 15th USENIX Conference on File and Storage Technologies (FAST '17) (1 paper) |
| 2011 | The 2011 Usenix Annual Technical Conference (Usenix ATC 2011) (1 paper) |
| 2009 | The 2009 ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS 2009) (2 papers) |
| 2009 | Fifth USENIX Conference on File and Storage Technologies (FAST '09) (1 paper) |
| 2007 | USENIX FAST Annual Conference (2 papers) |
| 2003 | USENIX FreeNIX Annual Conference (2 papers) |

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| 2002 | USENIX FreeNIX Annual Conference (4 papers) |
| 2001 | First USENIX Conference on File and Storage Technologies (FAST '02) (1 paper) |

### Software Released or Maintained

| | |
|---|---|
| 2010–present | Wrapfs Stackable File System for Linux |
| 2007–present | GCC Plugin Infrastructure. |
| 2005–present | Auto-Pilot: A Suite of Tools for Conducting Benchmarks, `www.filesystems.org/project-autopilot.html` |
| 2004–present | Unionfs: A Stackable Unification File System, `https://unionfs.filesystems.org`. (As of January 2007, Unionfs has been a part of Andrew Morton's Linux Kernel source tree. Andrew is the person in charge of supplying new patches to Linus Torvalds for new kernel releases, therefore Unionfs is on its way to becoming a part of the Linux kernel.) |
| 1997–present | FiST: Stackable File System Language and Templates, `www.filesystems.org/` |
| 1992–present | Am-Utils: The Berkeley Automounter Suite of Utilities, `www.am-utils.org` |
| 2004–2005 | $I^3$FS: In-Kernel Integrity Checker and Intrusion Detection File System, `www.fsl.cs.sunysb.edu/project-i3fs.html` |
| 2003–2004 | KBDB: In-Kernel Berkeley DB Databases NFScrack: NFS File Handle Security, KBDBFS: File System Extensibility and Reliability Using an in-Kernel Database, `www.fsl.cs.sunysb.edu/project-kbdb.html` |
| 2002 | ENF: Enhancing NFS Cross-Administrative Domain Access, `ftp://ftp.fsl.cs.sunysb.edu/pub/enf/` |
| 1999 | PGmake: Parallel GNU Make, `www.fsl.cs.sunysb.edu/project-pgmake.html` |

## TALKS

### Invited Talks

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| May 2017 | *Oh, what a tangled web we weave: practice and deception in system analysis*, Performance Evaluation and Analysis Meetup, IBM Research–Haifa, Haifa, Israel. |
| May 2017 | *vNFS: Maximizing NFS Performance with Compounds and Vectorized I/O*, ACM SYSTOR 2017 (highlights paper track), Haifa, Israel. |
| Feb 2017 | *Oh, what a tangled web we weave: practice and deception in system analysis*, Tintri, Inc., Mountain View, CA. |
| Dec 2016 | *Oh, what a tangled web we weave: practice and deception in system analysis*, Harvey Mudd College, Claremont, CA. |
| Jun 2016 | *Oh, what a tangled web we weave: practice and deception in system analysis* Keynote address at inaugural workshop: The 1st International Workshop on System Analytics and Characterization (SAC'16, co-located with ACM SIGMETRICS), Antibes Juan-Les-Pins, France. |
| Feb 2016 | *Parametric Optimization of Storage Systems*, VMware Inc., Palo Alto, CA. |

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| Feb 2006 | *File System and Storage Benchmarking: On Formalizing Filebench Workloads*, a Birds-of-Feather (BoF) talk presented at the 2016 Usenix FAST conference, Santa Clara, CA. |
| Jun 2012 | *Storage Security Overview*, CA/CEWIT center inauguration workshop, Tel Aviv University, Tel Aviv, Israel. |
| May 2012 | *Synthesizing Realistic Workload Models and Dedup Datasets*, IBM Haifa Research Labs, Tel Aviv, Israel. |
| May 2012 | *Optimizing Performance and Energy Use of Large Data Systems*, NSF Industry/University Center (I/UCRC) for Dynamic Data Analytics (CDDA) 2012 workshop, Stony Brook, NY. |
| Feb 2012 | *Scaling OS Storage Stack Performance Using NVRAM Technologies*, Fusion-io, San Jose, CA |
| Nov 2011 | *Scaling and Understanding Large Data I/O Performance*, NSF Industry/University Center (I/UCRC) for Dynamic Data Analytics (CDDA) 2011 workshop, Rutgers, NJ. |
| Nov 2011 | *Scaling I/O Performance for Large Data Sets*, 2011 CEWIT Center Conference, Hauppauge, NY. |
| Nov 2011 | *Scaling OS Storage Stack Performance Using NVRAM Technologies*, Operating System Support for Next Generation Large Scale NVRAM (NVRAMOS'11), Jeju Island, South Korea. |
| Aug 2011 | *Optimizing Server Performance and Energy*, High-End Computing Filesystems and I/O Workshop (HEC FSIO 2011), Arlington, VA. |
| May 2011 | *On the Energy Consumption and Performance of Systems Software*, The 4th Israeli Experimental Systems Conference (ACM SYSTOR '11), Haifa, Israel. |
| Feb 2011 | *FSL Storage Research Overview*, Riverbed, Inc, Menlo Park, CA. |
| Nov 2010 | *Server-Class Energy and Performance Evaluations, or, Mommy, Daddy, where did my Joules go?*, An SBCS Faculty Symposium series talk, sponsored by the Stony Brook Computer Society's ACM Chapter. Stony Brook University, Computer Science Department, Stony Brook, NY. |
| May 2010 | *Server-Class Energy and Performance Evaluations*, The Third Israeli Experimental Systems Conference (ACM SYSTOR '10), Haifa, Israel. |
| Feb 2010 | *On the Science of Power Management: Encouraging Sustainability R&D*, First USENIX Workshop on Sustainable Information Technology (SustainIT'10), San Jose, CA. |
| Feb 2010 | *FSL Research Overview*, Data Domain, Inc, Santa Clara, CA. |
| Nov 2009 | Priya Sehgal and Erez Zadok, *Improving Energy & Performance For Server Workloads*, The third Advanced Energy Research & Technology Center (AERTC) conference, Hauppauge, NY. |
| July 2009 | *Energy and Performance Characterization of Storage Stacks*, IBM Watson Research Labs, Hawthorne, NY. |
| May 2009 | *DHIS: Discriminating Hierarchical Storage*, The Israeli Experimental Systems Conference (ACM SYSTOR '09), Haifa, Israel. |

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| May 2009 | *Energy and Performance Evaluation of Lossless File Data Compression on Server Systems*, The Israeli Experimental Systems Conference (ACM SYSTOR '09), Haifa, Israel. |
| February 2009 | *How to Cheat in Benchmarking*, a Birds-of-Feather (BoF) talk presented at the 2009 Usenix FAST conference, San Francisco, CA. |
| Nov 2008 | *Mommy, Daddy, Why is My New Laptop So Dog Slow?!*, Parents' Day lecture, Stony Brook University, Stony Brook, NY. |
| May 2007 | *Why is my new laptop so dog slow?!*, An SBCS Faculty Symposium series talk, sponsored by the Stony Brook Computer Society's ACM Chapter. Stony Brook University, Computer Science Department, Stony Brook, NY. |
| July 2006 | *Securing Applications using Operating System Transactions*, Center for Information Protection, NSF I/UCRC organizational workshop, Stony Brook, NY. |
| June 2006 | *Adding security to file systems, one layer at a time*, IBM's Storage Systems Strategy meeting, Mountain View, CA. |
| June 2006 | *File System Benchmarking: Fallacies, Pitfalls, and Beyond*, VMware, Inc., Palo Alto, CA. |
| December 2005 | *File System Benchmarking and Tools: Past, Present, and Future*, a Birds-of-Feather (BoF) talk presented at the 2006 Usenix FAST conference, San Francisco, CA. |
| December 2005 | *File System Benchmarking: Fallacies, Pitfalls, and Beyond*, Penn State University, Computer Science Department, State College, PA. |
| October 2005 | *File System Benchmarking: Fallacies, Pitfalls, and Beyond*, IBM Watson Research Labs, Hawthorne, NY. |
| October 2005 | *File System Benchmarking: Fallacies, Pitfalls, and Beyond*, CSE-600 talk, Stony Brook University, Computer Science Department, Stony Brook, NY. |
| September 2005 | *File System Benchmarking: Fallacies, Pitfalls, and Beyond*, UC Santa Cruz, Computer Science Department, Santa Cruz, California. |
| June 2005 | *Adding security to file systems, one layer at a time*, Second Security Summit, Storage Networking Industry Association (SNIA), Pittsburgh, Pennsylvania |
| May 2005 | *File System Security*, 35th Anniversary Celebration, Stony Brook University, Computer Science Department (CS@35), Stony Brook, New York |
| April 2005 | *Efficient and Safe Execution of User-Level Code in the Kernel*, the 2005 NSF Next Generation Software Workshop, in conjunction with the 2005 International Parallel and Distributed Processing Symposium (IPDPS), Denver, Colorado |
| October 2004 | *File System and OS Security*, talk given to Korean delegation led by Dr. Ho, Stony Brook University, Stony Brook, New York |
| October 2004 | *File System and OS Security*, Computer Associates, Islandia, New York |
| June 2003 | *ASK: Active Spam Killer*, Annual Usenix Conference, FREENIX Track, San Antonio, Texas |
| February 2003 | *File System Security*, New York State Cyber-Security Symposium, Utica, New York |

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| April 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, University of Chicago |
| March 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, University of Rochester |
| March 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, Stony Brook University |
| March 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, University of California and Santa Barbara |
| March 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, Penn State University |
| February 2000 | *FiST: A System for File System Code Generation*, Computer Science Department, Bell Labs, New Jersey |

## Interviews

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| November 4, 2005 | LIA magazine, with Ellen Sterling; what small businesses can do to protect themselves. |
| June 29, 2001 | Dr. Dobb's Technetcast, with Phillippe Lourier; my NFS and Automounters book, status of Linux file system development. |

## Other Presentations

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| Mar 2012 | Erez Zadok, Steering Committee Town Hall meeting, presenting Google Apps for Education, Stony Brook University. |
| Feb 2012 | Daniel C. Rosenthal, University of California, Santa Cruz; David S. H. Rosenthal, Stanford University Libraries; Ethan L. Miller and Ian F. Adams, University of California, Santa Cruz; Mark W. Storer, NetApp; Erez Zadok, Stony Brook University. *Toward an Economic Model of Long-Term Storage* WIP presented at the *Tenth USENIX Conference on File and Storage Technologies (FAST '12)*, San Jose, CA. |
| Feb 2012 | Zhichao Li, Stony Brook University; Kevin M. Greenan and Andrew W. Leung, EMC Corporation; Erez Zadok, Stony Brook University. *Power Consumption in Enterprise-Scale Backup Storage Systems* Poster presented at the *Tenth USENIX Conference on File and Storage Technologies (FAST '12)*, San Jose, CA. |
| Feb 2012 | V. Tarasov and S. Kumar, Stony Brook University; J. Ma, Harvey Mudd College; D. Hildebrand and A. Povzner, IBM Almaden Research; G. Kuenning, Harvey Mudd College; E. Zadok, Stony Brook University *Extracting Flexible, Replayable Models from Large Block Traces* Poster presented at the *Tenth USENIX Conference on File and Storage Technologies (FAST '12)*, San Jose, CA. |
| Nov 2011 | Zhichao Li, R. Grosu, S. A. Smolka, S. D. Stoller, and E. Zadok, Stony Brook University. *Power and Performance in Compression Systems: A Control Theoretical Approach with Evaluation* Poster presented at the *Eighth CEWIT conference (CEWIT '11)*, Hauppauge, NY. |
| Oct 2011 | Zhichao Li, R. Grosu, S. A. Smolka, S. D. Stoller, and E. Zadok, Stony Brook University. *Power and Performance in Compression Systems: A Control Theoretical Approach with Evaluation* Poster presented at the *Fifth AERTC conference (AERTC '11)*, Buffalo, NY. |

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| May 2011 | Vasily Tarasov, Koundinya Santhosh Kumar, and Erez Zadok, Stony Brook University; Geoff Kuenning, Harvey Mudd College. *T2M: Converting I/O Traces to Workload Models*, Poster presented at the *13th USENIX Workshop on Hot Optics in Operating Systems (HotOS '11)*, Napa, CA. |
| Feb 2011 | Vasily Tarasov, Koundinya Santhosh Kumar, and Erez Zadok, Stony Brook University; Geoff Kuenning, Harvey Mudd College. *T2M: Converting I/O Traces to Workload Models*, WIP and Poster presented at the *Ninth USENIX Conference on File and Storage Technologies (FAST '11)*, San Jose, CA. |
| Feb 2011 | Erez Zadok, Stony Brook University and Geoff Kuenning, Harvey Mudd College. *Benchmarking and Tracing: New Horizons*, Birds-of-a-feather (BOF) presented at the *Ninth USENIX Conference on File and Storage Technologies (FAST '11)*, San Jose, CA. |
| Oct 2011 | Justin Seyster, Abhinav Duggal, Prabakar Radhakrishnan, Scott D. Stoller, and Erez Zadok, Stony Brook University. *Redflag: Detailed Runtime Analysis of Kernel-Level Concurrency*, Poster presented at the *9th USENIX Symposium on Operating Systems Design and Implementations (OSDI '10)*, Vancouver, BC, Canada. |
| Feb 2010 | Vasily Tarasov, Sujay Godbole, and Erez Zadok. *NSFv4 Implementations: Who Performs Better, When, and Why*, poster presented at the *Eighth USENIX Conference on File and Storage Technologies (FAST '10)*, San Jose, CA. |
| Feb 2010 | Rick Spillane and Erez Zadok. *Down with the VFS and His Insidious Caches!*, WIP presented at the *Eighth USENIX Conference on File and Storage Technologies (FAST '10)*, San Jose, CA. |
| Jan 2010 | Erez Zadok and Radu Sion. *Energy and Cost Analysis of Cloud Computing*, NSF Industry/University Center (I/UCRC) for Dynamic Data Analytics (CDDA) planning workshop, New York, NY. |
| Oct 2009 | Priya Sehgal, Vasily Tarasov, and Erez Zadok. *Server Energy and Performance Evaluations*, poster presented at the *2009 CEWIT Center Conference*, Islandia, NY. |
| Dec 2008 | Rick Spillane, Chaitanya Yalamanchili, Sachin Gaikwad, Manjunath Chinni, and Erez Zadok. *Honor: A Serializing On-Disk Writeback Buffer*. WIP presented at the *Eighth Symposium on Operating Systems Design and Implementation (OSDI '08)*, San Diego, CA. |
| Mar 2007 | D. Dean, S. Callanan, and E. Zadok. *Developing GCC Transformations Faster with Gimple Viz* Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Mar 2007 | J. Seyster, S. Callanan, R. Grosu, S. Smolka, and E. Zadok. *Memcov A High Performance Memory Profiling Tool*. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Mar 2007 | R. Spillane and E. Zadok. *A Lot for a Little: Transactional File Systems*. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Apr 2006 | R. Spillane, C. P. Wright, and E. Zadok, *Goanna* (Best Paper Award), Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |

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| Apr 2006 | N. Joukov, H. Papaxenopoulos, and E. Zadok, *Secure Deletion Myths, Issues, and Solutions*. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| Sep 2005 | E. Zadok, *A Layered Approach to Securing File Systems*, poster presented at the NSF CyberTrust PI meeting, Newport Beach, CA. |
| Oct 2005 | N Joukov, R. Iyer, A. Traeger, C. P. Wright, and E. Zadok. Versatile, Portable, and Efficient OS Profiling via Latency Analysis. Poster presented at the *20th ACM Symposium on Operating Systems Principles (SOSP'05)*, Brighton, UK. |
| Jul 2005 | D. Quigley, C. P. Wright, and E. Zadok. *UnionFS: Namespace Management*. Cyber Corps Summer Symposium 2005, Syracuse, New York. |
| Apr 2005 | D. Quigley, C. P. Wright, and E. Zadok. *UnionFS*. URECA (undergraduate research) presentation at Stony Brook. |
| Aug 2004 | Y. Miretskiy, A. Das, C. P. Wright, and E. Zadok. Avfs: An On-Access Anti-Virus File System. Poster presented at the *Workshop on Information Assurance Education* (WIAED 2004), Stony Brook University |
| Aug 2004 | C. P. Wright, M. C. Martino, and E. Zadok. NCryptfs: A Secure and Convenient Cryptographic File System. Poster presented at the *Workshop on Information Assurance Education* (WIAED 2004), Stony Brook University |
| May 2004 | P. Gupta, H. Krishnan, C. P. Wright, and E. Zadok. Versatility and Unix Semantics in a Fan-Out Unification File System. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| May 2004 | A. Kashyap, J. Dave, H. Krishnan, C. P. Wright, M. Nayyer Zubair, and E. Zadok. Using Berkeley DB in the Linux Kernel. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| May 2004 | Y. Miretskiy, A. Das, C. P. Wright, and E. Zadok. Avfs: An On-Access Anti-Virus File System (Best Paper Award). Graduate Research Conference (GRC), Computer Science Department, Stony Brook University. |
| May 2004 | A. Aranya, C. P. Wright, and E. Zadok Tracefs: A File System to Trace Them All. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University |
| Apr 2004 | C. P. Wright and E. Zadok. A Stackable Smorgasbord. Poster presented at the *Third USENIX Conference on File and Storage Technologies (FAST '04)*, San Francisco, CA. |
| Apr 2004 | C. P. Wright and E. Zadok. *Avfs: An On-Access Anti-Virus File System* WIP presented at the *Third USENIX Conference on File and Storage Technologies (FAST '04)*, San Francisco, CA. |
| Apr 2004 | K. Muniswamy-Reddy, and E. Zadok. Elastic Quotas. Poster presented at the *12th NASA Goddard, 21st IEEE Conference on Mass Storage Systems and Technologies (MSST 2004)*, College Park, MD. |
| Nov 2003 | C. P. Wright and E. Zadok. Secure and Mobile File Systems. Poster presented at the *CEWIT 2003* conference, Woodbury, NY. |

June 2003 P. Gupta, H. Krishnan, K. Muniswamy-Reddy, C. P. Wright, and E. Zadok. Unionfs: A Flexible, and Portable Unioning File System. WIP presented at the *Annual USENIX Technical Conference*, San Antonio, TX.

June 2003 A. Himmer, K. Muniswamy-Reddy, C. P. Wright, and E. Zadok. Versionfs: A Transparent and Portable Versioning File System. WIP presented at the *Annual USENIX Technical Conference*, San Antonio, TX.

May 2003 A. Himmer and E. Zadok. Versionfs: A Transparent and Portable Versioning File System. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University.

May 2003 E. Zadok, J. Osborn, A. Shater, C. P. Wright, K. Muniswamy-Reddy, and J. Nieh. Elastic Quotas: Stretch Your Disk Space. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University.

May 2003 C. P. Wright, M. C. Martino, and E. Zadok. NCryptfs: A Secure and Convenient Cryptographic File System. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University.

May 2003 A. Purohit, C. P. Wright, J. Spadavecchia, and E. Zadok. Cosy: Develop in User-Land, Run in Kernel-Mode. Graduate Research Conference (GRC), Computer Science Department, Stony Brook University.

April 2003 M. Prasad and E. Zadok. Transparent Page Cache Coherence Support for Linux-based Stackable File Systems. WIP presented at the *Second USENIX Conference on File and Storage Technologies (FAST '03)*, San Francisco, CA.

Fall 2002 E. Zadok. Linux Kernel Internals. Guest lecture in CSE-306.

December 2002 A. Purohit, J. Spadavecchia, C. Wright, and E. Zadok. Improving Application Performance Through System Call Composition WIP presented at the *Fifth Symposium on Operating Systems Design and Implementation (OSDI '02)*, Boston, MA.

December 2002 C. Wright, M. Martino, and E. Zadok. NCryptfs: A Secure and Convenient Cryptographic File System. WIP presented at the *Fifth Symposium on Operating Systems Design and Implementation (OSDI '02)*, Boston, MA.

December 2002 E. Zadok, J. Osborn, C. P. Wright, K. Muniswamy-Reddy. Elastic Quotas. WIP presented at the *Fifth Symposium on Operating Systems Design and Implementation (OSDI '02)*, Boston, MA.

June 2002 A. Purohit, J. Spadavecchia, C. Wright, and E. Zadok. Improving Application Performance Through System Call Composition. WIP presented at the *Annual USENIX Technical Conference*, Monterey, CA.

June 2002 O. C. Leonard, J. Nieh, E. Zadok, J. Osborn, A. Shater, and C. Wright. The Design and Implementation of Elastic Quotas: A System for Flexible File System Management. WIP presented at the *Annual USENIX Technical Conference*, Monterey, CA.

January 2002 J. Spadavecchia and E. Zadok. Enhancing NFS Cross-Administrative Domain Access. WIP presented at the *First USENIX Conference on File and Storage Technologies (FAST '02)*, Monterey, CA.

December 1999 E. Zadok and J. Nieh. FiST: A Language for Stackable File Systems. Poster presented

at the *17th ACM Symposium on Operating Systems Principles (SOSP)*, Kiawah Island, SC.

## TEACHING

### Instructor

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|---|---|
| Spring 2022 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Spring 2022 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2022 | Advanced Project in Computer Science I (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2022 | Advanced Project in Computer Science I (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2022 | Graduate Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2022 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2021 | Advanced Project in Computer Science I (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2021 | Advanced Project in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2021 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2021 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2021 | Seminar in Concurrency (CSE-643), Computer Science Department, Stony Brook University |
| Fall 2021 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2021 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2021 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Spring 2021 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2021 | Advanced Project in Computer Science I (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2021 | Advanced Project in Computer Science I (CSE-524), Computer Science Department, Stony Brook University |

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| Spring 2021 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2021 | Graduate Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2021 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2020 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Fall 2020 | Senior Honors Research Project II (CSE-499), Computer Science Department, Stony Brook University |
| Fall 2020 | Advanced Project in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2020 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2020 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2020 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Summer 2020 | Senior Honors Research Project I (CSE-495), Computer Science Department, Stony Brook University |
| Summer 2020 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Spring 2020 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
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| Fall 2019 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2019 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2019 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Spring 2019 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
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| Summer 2016 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Spring 2016 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2016 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Spring 2016 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2016 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2016 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2016 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2015 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2015 | Senior Honors Research Project II (CSE-496), Computer Science Department, Stony Brook University |
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| Fall 2015 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2015 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2015 | Graduate Teaching Practicum (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2015 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2015 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2015 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |

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| Spring 2015 | Topics in Computer Science: Storage Systems (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2015 | Senior Honors Research Project I (CSE-495), Computer Science Department, Stony Brook University |
| Spring 2015 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2015 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2015 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2015 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2015 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2014 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
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| Fall 2014 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2014 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2014 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Spring 2014 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2014 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2014 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2014 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |

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| Spring 2014 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2013 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Fall 2013 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2013 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2013 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2013 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2013 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2013 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Summer 2013 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2013 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2013 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2013 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2013 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2013 | Topics in Computer Science: Storage Systems (CSE-595), Computer Science Department, Stony Brook University |
| Spring 2013 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2012 | *Operating Systems* (CSE-306), Computer Science Department, Stony Brook University |
| Fall 2012 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2012 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2012 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2012 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |

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|---|---|
| Summer 2012 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2012 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Summer 2012 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2012 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2012 | Special Project in Computer Science (CSE-522), Computer Science Department, Stony Brook University |
| Spring 2012 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2012 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2012 | Topics in Computer Science: Storage Systems (CSE-595), Computer Science Department, Stony Brook University. |
| Spring 2012 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2012 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2011 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Fall 2011 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2011 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2011 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2011 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2011 | Information Systems Internship (ISE-488), Computer Science Department, Stony Brook University |
| Summer 2011 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2011 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Spring 2011 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |

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| Spring 2011 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2011 | *M.S. Thesis Research* (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2011 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2010 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2010 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2010 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2010 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2010 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2010 | M.S. Internship in Research (CSE-596), Computer Science Department, Stony Brook University |
| Summer 2010 | Internship in Research (CSE-696), Computer Science Department, Stony Brook University |
| Summer 2010 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2010 | Systems Administration (CSE-311), Computer Science Department, Stony Brook University |
| Spring 2010 | Systems Administration (ISE-311), Computer Science Department, Stony Brook University |
| Spring 2010 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2010 | *M.S. Thesis Research* (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2010 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2010 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2009 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2009 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |

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| Fall 2009 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2009 | *M.S. Thesis Research* (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2009 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2009 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Spring 2009 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2009 | Undergraduate Teaching Practicum (CSE-475), Computer Science Department, Stony Brook University |
| Spring 2009 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2009 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2009 | Proficiency Requirement in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Spring 2009 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2009 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2009 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2008 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2008 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2008 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2008 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2008 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2008 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2008 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |

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| Spring 2008 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2008 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2008 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2008 | Proficiency Requirement in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Spring 2008 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2008 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2008 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2007 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2007 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2007 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2007 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2007 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2007 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2007 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2007 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2007 | Undergraduate Teaching Practicum (CSE-475), Computer Science Department, Stony Brook University |
| Spring 2007 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2007 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2007 | Topics in Computer Science: Secure Storage (CSE-590), Computer Science Department, Stony Brook University. Co-taught with Prof. Radu Sion. |

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| Spring 2007 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2007 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2007 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2006 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2006 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2006 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2006 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2006 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2006 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Summer 2007 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2006 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2006 | Topics in Computer Science: File Systems (CSE-594), Computer Science Department, Stony Brook University |
| Spring 2006 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2006 | Proficiency Requirement in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Spring 2006 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2006 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2005 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2005 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2005 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |

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| Fall 2005 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2005 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2005 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Spring 2005 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Summer 2005 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Summer 2005 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Summer 2005 | FT Summer Research (CSE-800), Computer Science Department, Stony Brook University |
| Spring 2005 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Spring 2005 | Advanced Operating Systems (CSE-624), Computer Science Department, Stony Brook University |
| Spring 2005 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Spring 2005 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2005 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2005 | Proficiency Requirement in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Spring 2005 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2005 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2004 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Fall 2004 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2004 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Fall 2004 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |

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| Fall 2004 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Spring 2004 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2004 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Spring 2004 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Spring 2004 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2004 | Practicum in Teaching (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2004 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2003 | Advanced Systems Programming in Unix/C (CSE-376), Computer Science Department, Stony Brook University |
| Fall 2003 | Introduction to Software Engineering and Project Plan (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2003 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2003 | Proficiency Requirement in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Fall 2003 | Independent Study in Computer Science (CSE-593), Computer Science Department, Stony Brook University |
| Fall 2003 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Summer 2003 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Summer 2003 | Intro to Software Engineering (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2003 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2003 | Senior Honors Research Project II (CSE-496), Computer Science Department, Stony Brook University |
| Spring 2003 | Intro to Software Engineering (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2003 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |

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| Spring 2003 | Independent Study in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Spring 2003 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2003 | Graduate Teaching Practicum (CSE-698), Computer Science Department, Stony Brook University |
| Fall 2002 | Advanced Systems Programming in Unix/C (CSE-376), new course developed, Computer Science Department, Stony Brook University |
| Fall 2002 | Senior Honors Research Project I (CSE-495), Computer Science Department, Stony Brook University |
| Fall 2002 | Intro to Software Engineering (CSE-523), Computer Science Department, Stony Brook University |
| Fall 2002 | Lab in Computer Science II (CSE-524), Computer Science Department, Stony Brook University |
| Fall 2002 | Independent Study in Computer Science (CSE-587), Computer Science Department, Stony Brook University |
| Fall 2002 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Summer 2002 | Intro to Software Engineering (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2002 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2002 | Undergraduate Teaching Practicum (CSE-475), Computer Science Department, Stony Brook University |
| Spring 2002 | Research in Computer Science (CSE-487), Computer Science Department, Stony Brook University |
| Spring 2002 | Intro to Software Engineering (CSE-523), Computer Science Department, Stony Brook University |
| Spring 2002 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |
| Spring 2002 | Internship in Research (CSE-698), Computer Science Department, Stony Brook University |
| Spring 2002 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Fall 2001 | *Special Topics in Software Engineering: Systems Programming* (CSE/ISE-391), Computer Science Department, Stony Brook University |
| Fall 2001 | M.S. Thesis Research (CSE-599), Computer Science Department, Stony Brook University |

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| Fall 2001 | Ph.D. Dissertation Research (CSE-699), Computer Science Department, Stony Brook University |
| Spring 2001 | Graduate Level *Operating Systems* (CSE-506), Computer Science Department, Stony Brook University |
| Spring 2001 | *Advanced File Systems*, seminar, Computer Science Department, Stony Brook University |
| November 1999 | Tutorial, *Using Amd and the Automounter Utilities*, USENIX LISA 13, Seattle, Washington |
| October 1999 | *NFS: Protocols, Programming and Implementation* (guest lecture in Internet Systems Programming), Computer Science Department, Columbia University |
| 1997–1999 | *Operating System Vulnerabilities* (guest lecture in Network Security), Computer Science Department, Columbia University |
| Fall 1995 | *Data Structures in C*, Computer Science Department, Columbia University |
| 1986 | *Programming in BASIC*, A.A. Computers, Holon, Israel |
| 1986 | *Programming in Logo*, A.A. Computers, Holon, Israel |

### Teaching Assistant

| | |
|---|---|
| Spring 1995 | *Computer Security*, Computer Science Department, Columbia University |
| Fall 1994 | *Operating Systems*, Computer Science Department, Columbia University |
| Spring 1992 | *Object-Oriented Programming and C++*, Computer Science Department, Columbia University |
| Spring 1989 | *Data Structures*, Computer Science Department, Columbia University |
| Fall 1989 | *Software Design Lab,* Computer Science Department, Columbia University |
| Fall 1988 | *Introduction to Programming in Pascal*, Computer Science Department, Columbia University |

## GRADUATE STUDENTS (PH.D.)

### Ph.D. Students Graduated

| | |
|---|---|
| May 2014–Jan 2019 | Zhen Cao Dissertation title: A Practical Auto-Tuning Framework for Storage Systems<br>Current Position: Google, Inc. (Mountain View, CA) |
| May 2012–Apr 2017 | Ming Chen. Dissertation title: Kurma: Efficient and Secure Multi-Cloud Storage Gateways for Network-Attached Storage<br>Current Position: Google, Inc. (New York, NY) |
| Sep 2009–May 2014 | Zhichao Li. Dissertation title: GreenDM: A Versatile Tiering Hybrid Drive for the Trade-Off Evaluation of Performance, Energy, and Endurance<br>Current Position: VMware, Inc. (Palo Alto, CA) |
| Jan 2008–Nov 2013 | Vasily Tarasov (IBM Ph.D. Fellow). Dissertation title: Multi-dimensional Workload Analysis and Synthesis for Modern Storage Systems<br>Current Position: IBM Research–Almaden, Inc. (San Jose, CA) |

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|---|---|
| Jan 2006–Dec 2013 | Justin Seyster (domestic) Dissertation title: Runtime Verification of Kernel-Level Concurrency Using Compiler-Based Instrumentation<br>Current Position: Apple Computer, Inc. (Cupertino, CA) |
| Jan 2008–Feb 2012 | Richard Spillane (domestic).<br>Dissertation title: Efficient, Scalable, and Versatile Application and System Transaction Management for Direct Storage Layers.<br>Current Position: Apple Computer, Inc. (Cupertino, CA) |
| Sep 2007–May 2011 | Vinay Pai (domestic).<br>Dissertation title: Incentive Mechanisms for Peer-to-Peer Streaming.<br>Current Position: MuCash (New York, NY) |
| Sep 2003–Aug 2009 | Sean Callanan (domestic).<br>Dissertation title: Flexible Debugging with Controllable Overhead.<br>Current Position: Apple Computer, Inc. (Cupertino, CA) |
| Sep 2003–Aug 2008 | Avishay Traeger (domestic) (IBM Ph.D. Fellow).<br>Dissertation title: Analyzing Root Causes of Latency Distributions.<br>Current Position: Research Staff Member, IBM Haifa Research Labs (Tel-Aviv, Israel) |
| Sep 2003–Feb 2008 | Gopalan Sivathanu.<br>Dissertation title: End-to-End Abstractions for Application-Aware Storage.<br>Current position: Google, Inc. (Mountain View, CA). |
| May 2003–Dec 2006 | Nikolai Joukov.<br>Dissertation title: Versatile, Portable, and Efficient File System Profiling.<br>Current position: Research Staff Member, IBM T. J. Watson Research Center (Hawthorne, NY). |
| May 2003–May 2006 | Charles P. Wright (domestic).<br>Dissertation title: Extending ACID Semantics to the File System via `ptrace`.<br>Current position: Research Staff Member, IBM T. J. Watson Research Center (Hawthorne, NY). |

### Current Ph.D. Students

| | |
|---|---|
| Jan 2020–present | Yifei Liu |
| May 2019–present | Meyer "Alex" Merenstein |
| May 2018–present | Tyler Estro |
| Sep 2017–present | Ibrahim "Umit" Akgun |

### Past Ph.D. Students Advised

| | |
|---|---|
| May 2019–Dec 2021 | Wei Su |
| Nov 2014–Dec 2017 | Sun (Jason) Zhen (visiting scholar from China) |
| Jun 2014–Dec 2016 | Sonam Mandal |
| May 2004–Nov 2004 | Anand Kashyap (He was Samir Das student. I advised him on one project and paper that came out of a class project.) |

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|---|---|
| Sep 2001–May 2002 | Li Aili (Student came to program interested in systems work, but became interested in graphics and switched areas altogether. Currently advised by Klaus Mueller.) |
| May 2001–May 2002 | Joseph Spadavecchia (domestic) (I advised and funded student for one year. Student dropped out of program to go work and study in Scotland, for personal reasons. We co-authored one paper together.) |
| May 2002–Aug 2002 | Zhenghong "Sam" Yang (Student already dropped from PhD to MS before I funded him under SPIR. Student graduated and now works for IBM.) |
| Sep 2001–May 2002 | Hui Zhang (Student came to program interested in systems work, but became interested in hardware systems. Currently advised by Yuanyuan Yang.) |

## GRADUATE STUDENTS (M.S.)

### Current M.S. Students

| | |
|---|---|
| May 2022–present | Pradeep Nalluri |
| Jun 2021–present | Archit Saxena |

### Past M.S. Students

| | |
|---|---|
| Jun 2021–May 2022 | Manish Adkar |
| Jun 2021–May 2022 | Nasratullah Sultany |
| Jun 2021–Jun 2022 | Pei Liu |
| Jun 2021–Dec 2021 | Rohan Chhabra |
| Jun 2021–May 2022 | Rishabh Srivastava |
| Jun 2021–May 2022 | Shushanth Madhubalan |
| Jun 2021–May 2022 | Tejeshwar Gurram |
| Jan 2021–Dec 2021 | Aakarsh Duvvuru |
| Sep 2020–Dec 2021 | Aadil Shaikh |
| Jun 2020–May 2021 | Dheeraj Ramchandani |
| Jan 2020–Dec 2020 | Abhiraj Smit |
| Jan 2020–May 2021 | Gomathi Ganesan |
| Jan 2020–Dec 2020 | Vigneshwaran Mylsamy |
| Jan 2020–Dec 2020 | Yatna Verma |
| Aug 2019–May 2020 | Aneesh Joshi |
| Jun 2019–Dec 2019 | Sagar Jeevan |
| Jan 2019–Dec 2019 | Akshay Aurora |
| Jan 2019–Dec 2019 | Jatin Sood |

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|---|---|
| Jan 2019–Dec 2019 | Krapi Ravindra Shah |
| Jan 2019–Dec 2019 | Mehul Jain |
| Jan 2019–Dec 2019 | Pragesh Jagnani |
| Jan 2019–Dec 2019 | Shobhit Khandelwal |
| Sep 2018–Dec 2019 | Aayush Sureka |
| Sep 2018–May 2019 | Dhivahar Perumal |
| Sep 2018–Dec 2019 | Ritika Nevatia |
| May 2018–Dec 2019 | Nilesh Somani |
| Jan 2018–Dec 2019 | Prafful Agarwal |
| Jan 2018–Dec 2018 | Ankit Aggarwal |
| Jan 2018–Dec 2018 | Dhanashri Patil |
| Jan 2018–Dec 2018 | Manu Mathew |
| Jan 2018–Dec 2018 | Prateek Roy |
| Jan 2018–Dec 2018 | Rahul Rane |
| Jan 2018–Dec 2018 | Rohit Kumar |
| Jan 2018–Dec 2018 | Saish Sali |
| Jan 2018–Dec 2018 | Siddesh Shinde |
| Jan 2018–Dec 2018 | Vineeth Ramesh |
| Aug 2017–Dec 2018 | Noopur Anil Maheshwari |
| Sep 2017–Apr 2018 | Tyler Estro |
| Jun 2017–May 2018 | Mayur Jadhav |
| May 2017–May 2018 | Maryia Maskaliova |
| Jan 2017–Dec 2017 | Darshan Godhia |
| Jan 2017–Dec 2017 | Farhaan Jalia |
| Jan 2017–Dec 2017 | Geetika Babu Bangera |
| Jan 2017–Dec 2017 | Kunal Shah |
| Jan 2017–Dec 2017 | Nehil Shah |
| Jan 2017–Dec 2017 | Nidhi Panpalia |
| Jan 2017–Dec 2017 | Rushabh Shah |
| Jan 2017–Dec 2017 | Sagar Shah |
| Jan 2017–Dec 2017 | Swaminathan Sivaraman |
| Jan 2017–Dec 2017 | Tushar Jain |

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|---|---|
| Sep 2016–Dec 2017 | Vinothkumar Raja |
| Aug 2016–Dec 2017 | Arun Ramachandran |
| Aug 2016–Dec 2017 | Mukul Sharma |
| Aug 2016–Dec 2017 | Sachin Tiwari |
| Aug 2016–Dec 2017 | Shivanshu Goswami |
| Aug 2016–Dec 2016 | Vishal Sahu |
| Apr 2016–May 2017 | Leixiang Wu |
| Jan 2016–Dec 2016 | Praveen Kumar Morampudi |
| Jan 2016–Dec 2016 | Vithiya Muthukumar |
| Jan 2016–Dec 2016 | Harshkumar Patel |
| Jan 2016–Dec 2016 | Deepika Peringanji |
| Jan 2016–Dec 2016 | Venkatakrishnan Rajagopalan |
| Jan 2016–Dec 2016 | Vishnu Vardhan Rajula |
| Jan 2016–Dec 2016 | Hari Prasath Raman |
| Sep 2015–Dec 2016 | Shubhi Rani |
| Jan 2016–Dec 2016 | Jasmit Saluja |
| Sep 2015–Dec 2016 | Ashok Sankar Harihara Subramony |
| Aug 2015–Dec 2016 | Bharath Kumar Reddy Vangoor |
| Sep 2014–May 2016 | Dongju Ok |
| Mar 2015–May 2016 | Garima Gehlot |
| Sep 2015–Dec 2015 | Vivek Tiwari |
| May 2014–Dec 2015 | Kumar Sourav |
| Sep 2014–Dec 2015 | Bharat Singh |
| Sep 2014–Dec 2015 | Varun Shastry |
| May 2014–Dec 2015 | Abhishek Gupta |
| Sep 2014–Dec 2015 | Arvind Chaudhary |
| Sep 2014–Dec 2015 | Aashray Arora |
| Sep 2013–May 2015 | Arun Olappamanna Vasudevan |
| Jan 2014–May 2015 | Akhilesh Chaganti |
| May 2014–May 2015 | Udit Kaushik Chitalia |
| Apr 2014–May 2015 | Kelong Wang |
| Sep 2013–Dec 2014 | Soujanya Shankaranarayana |

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|---|---|
| May 2014–Dec 2014 | Li Mengyang |
| Sep 2013–May 2014 | Amanpreet Mukker |
| Jun 2013–May 2014 | Sonam Mandal |
| Sep 2012–Dec 2013 | Deepak Jain |
| Sep 2012–Dec 2013 | Sagar Trehan |
| Sep 2012–Dec 2013 | Madhu Srikar Palmur |
| Sep 2012–May 2013 | Benixon Arul Dhas |
| May 2012–Jun 2013 | Karthikeyani Palanisami |
| Jan 2012–Dec 2012 | Binesh Andrews |
| Jan 2012–Dec 2012 | Atul Karmarkar |
| Sep 2011–Dec 2012 | Mandar S. Joshi |
| Sep 2011–Dec 2012 | Ravikant R. Malpani |
| Sep 2011–May 2012 | Rajesh Aavuty |
| Jan 2011–May 2012 | Amar Mudrankit |
| Jan 2011–Dec 2011 | Siddhi Tadpatrikar |
| Sep 2010–Dec 2011 | Samriti Katoch |
| Sep 2010–Dec 2011 | Koundinya Santhosh Kumar |
| Aug 2010–May 2012 | Pradeep Shetty |
| Jan 2011–May 2011 | Koundinya Muppalla |
| Jan 2010–Dec 2010 | Prabakar Radhakrishnan |
| Jan 2010–Dec 2010 | Gyumin Sim |
| Sep 2009–Dec 2010 | Shrikar Archak |
| Sep 2009–Dec 2010 | Saumitra Bhanage |
| Sep 2009–Dec 2010 | Sagar Dixit |
| Jan 2009–May 2010 | Priya Sehgal |
| Jan 2009–Dec 2009 | Karthikeyan Srinaivasan |
| Sep 2008–May 2010 | Abhinav Duggal |
| Sep 2008–Dec 2009 | Sujay Godbole |
| Jan 2008–Dec 2008 | Yamini Allu |
| Jan 2008–Dec 2008 | Manjunath Chinni |
| Jan 2008–Dec 2008 | Sachin Gaikwad |
| Sep 2007–Jun 2009 | Daniel J. Dean (domestic) |

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| Sep 2007–Dec 2008 | Himanshu Kanda |
| Sep 2007–May 2009 | Rachita Kothiyal |
| Sep 2007–Dec 2008 | Chaitanya Yalamanchili |
| Jan 2007–Dec 2007 | Kimberly Albrecht (domestic, SFS scholar) |
| Jan 2007–Dec 2007 | Ramya Edara |
| Jan 2007–Dec 2007 | Ivan Deras Tabora |
| Jan 2007–Dec 2007 | Kumar Thangavelu |
| Sep 2006–Dec 2007 | Gopala Suryanarayana |
| Sep 2006–Dec 2007 | Kiron Vijayasankar |
| Jun 2006–Dec 2007 | Richard Spillane (domestic) |
| Jan 2006–August 2007 | Swaminathan Sundararaman |
| Sep 2006–June 2007 | Yiannis Pericleous |
| Sep 2005–May 2007 | David Quigley (domestic, SFS scholar) |
| Jan 2006–March 2007 | Harry Papaxenopoulos (domestic, SFS scholar) |
| Jan 2006–Dec 2006 | Chaitanya Patti |
| Jan 2005–Dec 2005 | Dan Ottavio (domestic) |
| Jan 2005–Dec 2005 | Arun Kumar |
| Sep 2004–Dec 2005 | Naveen Gupta |
| Sep 2004–Dec 2005 | Rakesh Narayan Iyer |
| Sep 2004–Dec 2005 | Sunil Satnur |
| May 2004–Nov 2004 | Swapnil V. Patil |
| Jan 2004–Dec 2004 | Mohammad Nayyer Zubair |
| Sep 2003–Aug 2005 | Abhishek Rai |
| Sep 2003–Dec 2004 | Aditya Kashyap |
| Sep 2003–Dec 2004 | Devaki Pandurang Kulkarni |
| May 2003–Aug 2002 | Akshat Khandelwal |
| May 2003–Aug 2002 | Deepak Rao |
| May 2003–Aug 2004 | Akshat Aranya |
| May 2003–Dec 2003 | Alexander Butler (domestic) |
| May 2003–Dec 2003 | Jay Pradip Dave |
| May 2003–Dec 2003 | Mohan-Krishna Channa-Reddy |
| May 2003–Dec 2003 | Salil Gokhale |

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| May 2003–Jan 2004 | Abhijith Das |
| May 2003–Dec 2004 | Miretskiy "Eugene" Yevgeniy (domestic) |
| Jan 2003–Dec 2003 | Harikesavan Pathangi Krishnan |
| Jan 2003–Dec 2003 | Puja Gupta |
| May 2002–Dec 2002 | Delia Paval |
| May 2002–Dec 2002 | Nitin Khosla |
| May 2002–Dec 2002 | Rongqing "Frank" Tu |
| May 2002–May 2003 | Jeffrey R. Osborn (domestic) |
| May 2002–May 2003 | Michael Martino (domestic) |
| May 2002–May 2003 | Zhenghong "Sam" Yang |
| Sep 2002–Dec 2002 | Nishant Nagalia |
| Sep 2002–Dec 2002 | Zhou Zhang |
| Sep 2002–Dec 2003 | Swaroop Karunakara |
| Sep 2002–May 2003 | Ana Centeno |
| Sep 2002–May 2003 | Andrew Himmer (domestic) |
| Sep 2002–May 2003 | Sheshadri Sreenath |
| Mar 2002–Apr 2003 | Manish Prasad |
| Jan 2002–May 2004 | Kiran-Kumar Muniswamy-Reddy |
| Sep 2001–May 2003 | Amit Purohit |

## UNDERGRADUATE STUDENTS

| | |
|---|---|
| Jun 2021–present | Michael Arkhangelskiy |
| Jun 2021–present | Andrew Burford |
| Jun 2021–present | Michael McNeill |

### Past Undergraduate Students

| | |
|---|---|
| Jun 2021–Jun 2022 | Pei Liu (domestic, BS program, CSE program) |
| Jun 2020–Dec 2020 | Haolin Yu (BS program, CSE program) |
| Jun 2020–May 2021 | Haewon Julie Lee (BS program, CSE program) |
| Jun 2020–May 2021 | Yang Yang (domestic, BS program, CSE program) |
| Aug 2019–May 2020 | Yinuo Zhang (BS program, CSE program) |
| Jul 2019–Dec 2019 | Abraham Spitalny, (domestic, BS program, CSE program) |
| May 2018–Dec 2018 | Amrith Arunachalam (domestic, BS program, CSE program) |
| May 2017–May 2018 | Kevin Sun (domestic, BS program, CSE program) |

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| Feb 2015–Mar 2016 | Leixiang Wu (domestic, BS program, CSE program) |
| July 2012–Dec 2012 | Edgardo Linero, (domestic, BS program, CSE program) |
| May 2011–May 2012 | Ryan Matthew Walsh, (domestic, BS program, ISE program) |
| May 2010–Aug 2011 | Christopher Jutting, (domestic, BS program, ISE program) |
| Jan 2009–July 2009 | Ryan Leif Walsh, (domestic, BS/MS program, Honors program) |
| Jan 2004–2009 | Adam David Alan Martin (domestic) |
| Sep 2005–May 2008 | Josef "Jeff" Sipek (domestic) |
| Jun 2006–August 2007 | Daniel J. Dean (domestic) |
| Jan 2005–May 2006 | Richard Spillane (domestic, BS/MS program, Honors program, Stony Brook URECA summer internship) |
| Jan 2005–Jul 2005 | Tim Wong (domestic) |
| Jan 2005–Aug 2005 | David Quigley (domestic) |
| May 2003–Dec 2003 | Mohammad Nayyer Zubair (Honors program, Stony Brook URECA summer internship) |
| Jan 2002–May 2002 | Evan Chan (domestic) |
| Jan 2002–May 2002 | Reynold Mercado (domestic) |
| Jan 2002–May 2002 | Jeffrey Osborn (domestic) |
| Jan 2002–May 2002 | Julio Salazar (domestic) |
| Jan 2002–May 2002 | Ariye Shater (domestic) |
| Jan 2002–May 2003 | Charles P. Wright (Honors program advisor, domestic) |
| Jan 2002–May 2002 | Yuri Yanpolski (domestic) |

## HIGH-SCHOOL STUDENTS

### Past High-School Students

| | |
|---|---|
| Sep 2015–Aug 2017 | Henry Nelson (domestic), "NFSv4 Compounds (vNFS)" project |
| June 2005–August 2005 | Jordan Hoch (domestic), Simons summer internship, project title "Visual Debugging of Operating Systems State." ) |

*Stony Brook, New York, May 26, 2023*