# Seth James Nielson's Vita

(512) 387-4310
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November 2022

## Academic Degrees

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|---|---|
| 2009 | **Ph.D. Computer Science,** Rice University, Houston, TX |
| 2004 | **M.S. Computer Science,** Brigham Young University, Provo, UT |
| 2000 | **B.S. Computer Science,** Brigham Young University, Provo, UT |

## Certifications

CISSP

## Current Appointments

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|---|---|
| Founder and Chief Scientist | Crimson Vista, Inc. |
| Director of Cybersecurity Research | Curuvar LLC |
| Adjunct Assistant Professor | University of Texas at Austin Law School |
| Cybersecurity Fellow | Robert Strauss Center for International Security and Law |

## Professional Advising

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| Advisory Board | Syccure Inc. |

## Non-profit and Community Engagement

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| Founding Director | The Crypto Done Right Foundation |
| Cyberlab Advisory Board | The SEED School of Maryland |

## Grants and Research Awards

Decentralizing Zero-Trust Infrastructure to Combat Advanced Persistent Threats and Malicious Insiders (Senior Personnel), NSF 2020 SBIR solicitation. Award number 2051989, Curuvar LLC.

Mitigation of Ransomware, DoD 2018.B STTR solicitation (Army), Topic: A18B-T010, Crimson Vista, $150,000 (2019)

An Enabling Repository of Cryptographic Knowledge (Co-PI), Cisco Grant, Johns Hopkins University Information Security Institute, $150,000 (2017-2021)

## University Research Funding

Sel4 Security Appliance Capstone, funded by Crimson Vista to Brigham Young University Department of Computer Science. 2021

## Academic Awards

Brown Fellowship
John and Eileen Tietze Fellowship

## Professional Service

International Cryptographic Module Conference, 2022 Program Committee
International Cryptographic Module Conference, 2021 Program Committee
International Cryptographic Module Conference, 2020 Program Committee
International Cryptographic Module Conference, 2019 Program Committee
International Cryptographic Module Conference, 2018 Program Committee

## Subject Matter Expertise and Selected Projects

Applied Cryptography

Analysis of compromised password hashes (Crimson Vista, 2020)

"Crypto Done Right", Cryptographic Knowledge Base Non Profit (2020-)

"Crypto Done Right", Cryptographic Knowledge Base with Cisco (Johns Hopkins, 2017-2020)

Simulated implementation of Vehicle-to-Vehicle authentication (Crimson Vista, 2018-2019)

Cryptographic protocol analysis and design for Syccure Inc. (Crimson Vista, 2017-)

Timing attacks on Hardware Security Modules with Diamond Key Security (Johns Hopkins, 2018)

Technical consulting for U.S. Dpt. of Justice (Antitrust Division, Transportation, Energy & Agriculture) (Crimson Vista, 2018)

Aircraft/drone anti-collision protocol security with OnBoard Security (Johns Hopkins, 2017)

Cryptographic communication library for Security First Corp (ISE, 2010-2011)

Encryption library, file system encryption, GPU for Security First Corp (ISE, 2005-2011)

IoT Devices and IoT Security

High-security appliance based on formal methods (Crimson Vista, BYU, 2021)

Hadoop security research (Crimson Vista, 2021-)

IoT data sensors for agricultural operations (Crimson Vista, 2020-)

Contributor, reviewer for the Institute of Assured Autonomy (Johns Hopkins, 2019)

IoT data aggregation security with Armored Things (Johns Hopkins, 2018-2019)

Automated IoT device profiling with the Physics Lab (Johns Hopkins, 2018)

Physical forensics from IoT devices (Johns Hopkins 2017)

Network Security

Security-Focused Data Discovery Methods and Practice (Crimson Vista, 2022-)

Virtual Chief Information Security Officer for IperionX (Crimson Vista, 2022-)

Analysis of weaknesses in two-factor authentication (Crimson Vista, 2022-)

Secure distributed computing (Curuvar, 2021-)

Hadoop deployment and security considerations (Crimson Vista, 2021-)

SSO technology evaluation and test (UT Austin, Crimson Vista, 2021-2022)

Information risk assessment with respect to data breach (Crimson Vista, 2020-2021)

Data breach analysis with respect to password authentication (Crimson Vista, 2020-2021)

Network security curriculum design for Law and Policy (University of Texas at Austin, 2020-)

Network security curriculum design for undergraduates (University of Texas at Austin, 2020-2021)

Network security curriculum design (Johns Hopkins, 2013-2019)

Security analysis of financial services vendor for Fortune-100 client (Crimson Vista, 2018-2019)

Analysis of secure e-mail transmission for confidential client (Crimson Vista, 2018-2019)

Cloud storage system security evaluation for confidential client (Harbor Labs, 2015)

Secure gateway security and compliance evaluation for SecurityFirst Corp (Harbor Labs, 2015)

Gateway caching security/privacy engineering (Google, 2005)

Malware and Viruses

Ransomware recovery research and development (Crimson Vista, 2018-2019)

Advanced malware and malware defenses analysis (Johns Hopkins, 2018)

Malware Analysis for Confidential Client (Crimson Vista, 2016)

Privacy

Investigation of location tracking in mobile devices (Crimson Vista, 2021-)

Development of an auditing tool for cookies and other web tracking (Crimson Vista, 2020)

Audit of a large hospital network for cookies and web tracking (Confidential client, 2020)

Development of a privacy curriculum for data architects (Crimson Vista, 2019)

Anonymization of threat indicators with the Applied Physics Lab (Johns Hopkins, 2017)

Analysis of anti-piracy vendor for Center for Copyright Information (Harbor Labs, 2013-2014)

Miscellaneous Security Technologies

Distributed ledger technology for secure state replication (Curuvar, 2021-)

Blockchain technology for sale and/or licensing of intellectual property (Crimson Vista, 2021-2022)

Blockchain technology analysis for a start-up (Crimson Vista, 2019-2020)

Analysis of cyber security norms for a confidential Fortune 100 client (Crimson Vista, 2018-2019)

Analysis of vulnerabilities in portable chemical manufacturing system (Johns Hopkins, 2018)

Open-Source Contribution and Sponsorship for The PyPy Project (Crimson Vista, 2018-2019)

Blockchain and smart contract design for confidential start-up (Crimson Vista, 2018)

Medical device system security evaluation for confidential client (Harbor Labs, 2015)

Software Engineering and Software Analysis

GitHub analysis and statistics for effort estimation (Crimson Vista, 2022)

Software theft analysis and tool design for various clients (Crimson Vista, 2018-)

Cyber insurance investigations for Clyde & Co (Crimson Vista, 2018-2019)

Distributed code coverage analysis tool for a confidential Fortune 100 client (ISE, 2011)

Software engineering for Metrowerks Inc. (2001-2003, formerly Lineo Inc.)

Forensic Source Code Analysis (i.e., Code/IP Theft)

Investigation of altered/forged emails (Crimson Vista, 2022)

CLE training related to source code analysis/trade secrets (Source Code Discovery, 2021)

Investigation of IP/code theft related to MTA, spear-phishing, and email (Crimson Vista, 2019-2021)

Investigation of code theft related to housing and rental software (Crimson Vista, 2019-2022)

Investigation of code theft related to digital mobile radios (Crimson Vista, 2017-2021)

Investigation of code theft related to financial trading software (Crimson Vista, 2016-2017)

Investigation of code theft related to e-commerce (Harbor Labs, 2015)

Investigation of IP theft embedded in source code related to domain anti-abuse (Harbor Labs, 2015)

Investigation of IP theft embedded in source code related to high-frequency trading (Harbor Labs, 2010-2011)

## Publications

Books

Seth James Nielson, *The Technology of Cybersecurity* (Working Title). (Expected 2023)

Seth James Nielson, Christopher K. Monson, *Practical Cryptography in Python, Learning Correct Cryptography by Example*. (October 2019).

Refereed Publications

Joseph Kosturko, Eric Schlieber, Sean Futch, Seth James Nielson, *Cracking a Continuous Flow Reactor: A Vulnerability Assessment for Chemical Additive Manufacturing Devices*. In *Proceedings of the 2018 IEEE International Symposium on Technologies for Homeland Security*. (September 2018)

Chanyang Shin, Prerit Chandok, Ran Liu, Seth James Nielson, Timothy Leschke, *Potential Forensic Analysis of IoT Data: An Overview of Amazon Echo, Z-wave, and Home Router Data Extraction and Analysis*. In *Proceedings of the 2017 IEEE International Conference on Internet of Things (iThings)*, Exeter, UK, pp. 705-710 (June 2017).

Seth James Nielson, *PLAYGROUND: Preparing Students for the Cyber Battleground*. *Computer Science Education*, volume 26, issue 4, pp. 255-276, (January 2017).

Seth James Nielson and Charles D. Knutson, *Design Dysphasia and the Design Patterns Maintenance Cycle*. *Information & Software Technology,* volume 48, number 8, pp. 660- 675, (August 2006)

Seth James Nielson, Scott S. Crosby, and Dan S. Wallach, *A Taxonomy of Rational Attacks*. In *Proceedings of the Fourth International Workshop on Peer-to-Peer Systems (IPTPS '05)*, Ithaca, New York, (February 2005)

Seth J. Nielson and Charles D. Knutson. *OO++: Exploring the Multiparadigm Shift*. *Proceedings of the Workshop on Multiparadigm Programming with Object-Oriented Languages* (MPOOL 2004), Oslo, Norway, (June 2004)

Rob Kunz, Seth Nielson, Mark Clement, Quinn Snell, *Effective Bandwidth for Traffic Engineering*, *Proceedings of the IEEE Workshop on High Performance Switching and Routing (HPSR 2001),* Dallas, TX, (May 2001)

Testimony Before Government Bodies

Testimony in support of *Maryland SB 151/HB 211 Criminal Law - Crimes Involving Computers – Ransomware*. Testimony given to the Judicial Proceedings Committee of the Maryland Senate and the Judiciary Committee of the Maryland House of Delegates (January/February 2019)

Invited Talks, Panels, and Technical Training

[**CANCELED DUE TO VENUE CHANGE**] Seth James Nielson, *Maintaining Data Security and Data Privacy in the 21st Century*, 2022 Enterprise Data World, San Diego, CA (March 2022)

Seth James Nielson, *Securing Your Data Assets Against Hackers*, 2021 Enterprise Data World, Boston, MA. (April 2021)

Seth James Nielson, *The Cybersecurity of IP*, 2020 Essential Cybersecurity Law, Austin, TX (Virtual). (July 2020)

[**CANCELED DUE TO COVID 19**] Seth James Nielson and Ellie Daw, *Correct Cryptography in Python*, a Tutorial for Cryptography Beginners, PyCon 2020, Philadelphia, PA. (April 2020)

[**CANCELED DUE TO COVID 19**] Seth James Nielson, *Protecting Your Data Assets*, 2020 Enterprise Data World, Boston, MA. (March 2020)

Seth James Nielson, *Security and Privacy for Data Architects*, 2019 Data Architecture Summit, Chicago, IL (October 2019)

Seth James Nielson, Crypto Done Right, One Year In. Lessons Learned and Next Steps. Presented in the International Cryptographic Knowledge Base 2019 (ICMC 2019), Vancouver, Canada (May 2019)

Panel Discussion, *Hardening US Unmanned Systems Against Enemy Counter Measures*. Accepted invitation to 7th Annual DoD Unmanned Systems Summit, Alexandria, VA (April 2019).

Seth James Nielson, *A Gentle Introduction to Blockchain*. 2019 Enterprise Data World, Boston, MA (March 2019).

Seth James Nielson, *A Gentle Introduction to Blockchain*. 2018 Data Architecture Summit, Chicago, IL (October 2018).

Seth James Nielson, *Detecting Malicious Sandboxes*. Workshop on Defensive Deception and Trust in Autonomy, San Diego, CA (August 2018).

Seth James Nielson and Debra Baker, *Towards a Crowd-Sourced Cryptographic Knowledge Base*. Presented in the International Cryptographic Knowledge Base 2018 (ICMC18), Ottawa, Canada (May 2018).

Seth James Nielson, *The PyPy Sandbox*. Presented in the National Centers of Academic Excellence Tech Talk, Online (March 2018).

Theses

*PhD Thesis:* Designing Incentives for Peer-to-Peer Systems (defended 10/2009)
*Master's Thesis:* OO++ Design Patterns, GOF Revisited (defended 8/2004)

Technical Reports

Seth James Nielson and Dan S. Wallach, The BitTorrent Anonymity Marketplace, arXiv Technical Report 1108.2718, (August 2011)

Seth James Nielson, Caleb E. Spare, and Dan S. Wallach, Building Better Incentives for Robustness in BitTorrent, arXiv Technical Report 1108.2716, (August 2011)

Seth James Nielson, Seth J. Fogarty, and Dan S. Wallach, *Attacks on Local Searching Tools*, arXiv

Technical Report 1108.2704 (Originally produced in December, 2004, available on arXiv as of August 2011)

White Papers and Trade Publications

Seth James Nielson, *Techniques for Discovering Unauthorized Copying in Software*, Crimson Vista White Paper, (January 2022)

Aviel D. Rubin, Seth J. Nielson, Christopher K. Monson, *Evaluation of the MarkMonitor AntiPiracy System*, Produced for the Center for Copyright Information (December 2013)

Aviel D. Rubin, Seth J. Nielson, Sam Small, Christopher K. Monson, *Guidelines for Source Code Review in Hi-Tech Litigation*, Harbor Labs White Paper (September 2013)

## Graduate Advising

Capstones for Masters of Science in Security Informatics (Johns Hopkins)

Weizhou Wang, Runjie Zhang, *Research on defense next-generation malware on the Windows platform* (December 2018)

Yu-Tsern Jou, Ying Liu, Menghan Bai, *Open Source HSM Side Channel Analysis* (December 2018)

Bowen Shi, Hong Ma, Mengqi Qin, *Side Channel Attack on HSM Based on Machine Learning* (December 2018)

Dylan Richmond, Matthew Shonman, Jingcheng Yang, *An Exploration of the Usability of HTTPS* (December 2018)

Steven Cheng, Venkata Aditya Bollapragada, and Antara Sargam, *Using Selective RAM Journaling to Fight Ransomware* (December 2018)

Yongqiang Fan, Haiwen Sun*, Fault Tolerance System for IoT* (December 2018)

Weike Chen, Harry Luo, Prashanth Venkateswaran, *IoT Discovery* (August 2018)

Joseph “Jay” Kosturko, Eric Schlieber, Sean Futch, *Cracking a Continuous Flow Reactor: A Vulnerability Assessment for Chemical Additive Manufacturing Devices* (May 2018)

Chao Lei, Wenjun Li, *Anti-Honeypot Detection in Advanced Botnet Attacks* (December 2017)

Ritvik Sachdev, Purushottam Kulkarni, Praveen Malhan, *Securing ADS-B Based Airborne Collision Avoidance Systems* (December 2017)

Ningyuan Bao, Mengying Hu, *Security-Testing-Orientated Internet of Things(IoT) Simulator* (December 2017)

Zehuan Li, Shanshan Yang, Liangjia Fu, *AIS Data De-anonymization* (December 2017)

Chanyang Shin, Prerit Chandok, Aurin Chakravarty, *Forensic Data Collection from IoT Devices* (December 2017)

Kevin Manzotti, Kashif Memon, Rahul Durgad, *Replication of CryptoDrop* (December 2016)

Harshneel More, Jingmiao Wang, Yuanqi Zhu, *Detecting XSS attacks using BRO IDS* (December 2016)

Asmaa Aljohani, Gyan Namdhari, Yue Zhu, *Feasibility, Security and Privacy Analysis of EMVCo Payment Tokenization Technology for Identity Enabled Transactions* (December 2016)

Richard Eaton, *The Emperor Has No Friends: Identifying Botnet Customers and Mapping Out Botnets on Twitter* (May 2015)

Jingru Chen, Yaning Liu, Yifan Yu, Zhiyue Zu, *Investigating the Heartbleed Vulnerability* (2015)

Kartik Thapar, *Security Techniques for Developing iOS Applications* (February 2015)

Jie Feng, Jianxiang Peng, Likai Zhang, *De-anonymizing BitCoin* (January 2014)

## Teaching

University of Texas at Austin

Cybersecurity Tech/Law Policy (2020-)
Network Security and Privacy (2020-2021)

Johns Hopkins University

Advanced Network Security (2017 - 2019)
Network Security (2014 – 2019)

Rice University

Data Structures and Algorithms (Spring 2008)

## Patents

*Co-inventor:* Nielson, S. 2021. Distributed Authentication Between Network Nodes. U.S. Patent 11,032,252 filed January 2, 2019 and issued June 8, 2021.

*Co-inventor*: Orsini, R. 2014. Systems and methods for security data in motion. U.S. Patent 8,745,372 filed November 24, 2010 and issued June 3, 2014.

*Co-inventor*: Orsini, R. 2014. Systems and methods for security data in motion. U.S. Patent 8,745,379 filed August 20, 2012 and issued June 3, 2014.

*Co-inventor*: O'Hare, R. 2014. Systems and methods for security data. U.S. Patent 8,677,148 filed January 27, 2012 and issued March 18, 2014.

## In the News

"Johns Hopkins Researchers and OnBoard Security Team Up to Protect Drones," *Robotics Tomorrow*, 3/16/2018

"Rice University Computer Scientists Find a Flaw in Google's New Desktop Search Program." *New York Times*, 12/20/2004

## Employment History

*University of Texas at Austin*
2020- **Adjunct Assistant Professor**

*Source Code Discovery, LLC.*
2019-2021 **Founder and Partner**

*Crimson Vista, Inc.*
2016-Present **Founder and Chief Scientist**

*Johns Hopkins Applied Physics Lab*
2018-2019 **Senior Professional Staff (Temp/On-Call)**

*Johns Hopkins University*
2016-2019 **Director of Advanced Research Projects**
2015-2019 **Adjunct Associate Research Scientist**
2014 **Lecturer**

*Harbor Labs, LLC*
2014-2015 **Principal**
2011-2014 **Research Scientist**

*Independent Security Evaluators*
2010-2011 **Senior Security Analyst**
2005-2009 **Security Analyst**

*Google, Inc.*
2005 **Summer Intern**

*Metrowerks (Formerly Lineo, Inc.)*
2001-2003 **Software Engineer II**

## Expert Testimony

On behalf of Lenovo/Motorola Mobiliy in Maxell Ltd v. Lenovo/Motorola Mobility (2022)

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|---|---|
| Counsel: | Kirkland and Ellis |
| Venue: | ITC |
| Subject Matter: | Authentication |
| Reports: | 1 Declaration November 2022 |

On behalf of Elon R Musk in Twitter Inc v. Elon R Musk (2022)

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|---|---|
| Counsel: | Quinn Emanuel Urquhart & Sullivan, LLP |
| Venue: | Court of Chancery of the Sate of Delaware |
| Subject Matter: | Evaluation of Security in light of Whistleblower Report |
| Reports: | 1 Report October 2022 |

On behalf of Bissell, Inc. in Bissell Inc. v. Tineco Intelligent Technology Co. Ltd., (2022)

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|---|---|
| Counsel: | Quinn Emanuel Urquhart & Sullivan, LLP |
| Venue: | ITC |

Subject Matter: Forensic evaluation of source code
Reports: 1 Report submitted September 2022
Testimony: Deposition November 2022

On behalf of Hakkasan USA in Hakkasan USA v Endurance American Specialty Insurance (2022)
Counsel: Quinn Emanuel Urquhart & Sullivan, LLP
Venue: District of Nevada (Clark County)
Subject Matter: Forensic evaluation of emails
Reports: 1 Report submitted May 2022
Testimony: Deposition July 2022

On behalf of JTC in Seimens vs JTC (2021-2022)
Counsel: Peckar and Abramson, PC
Venue: American Arbitration Association
Subject Matter: Software Engineering Efforts
Reports: 1 Report submitted in July 2021
1 Report submitted in September 2021
Testimony: March 2021

On behalf of Samsung in Samsung v. Proxense (2021-Present)
Counsel: Quinn Emanuel Urquhart & Sullivan, LLP
Venue: Western District of Texas (Waco)
Subject Matter: Authentication, Authorization, Device-to-device
Reports: 1 declaration submitted October 2021
Testimony: Deposition October 2022

On behalf of Bitglass in Netskope, Inc. v. Bitglass Inc. (2021-Present)
Counsel: Irell and Manela, LLP
Venue: PTAB Petition for Inter Partes Review
Subject Matter: Authentication, Single-Sign-On
Reports: 1 declaration submitted September 2021
1 declaration submitted March 2021

On behalf of The State of Arizona in Arizona v. Google (2021-Present)
Counsel: Ruttenberg IP Law
Venue: Superior Court of the State of Arizona (Maricopa)
Subject Matter: Privacy, Location tracking, Data collection
Reports: 1 declaration submitted August 2021

On behalf of TLC in TLC v. Koninklijke Philips N.V., US Philips Corporation (2019-2021)
Counsel: Perkins Coie LLP
Venue: PTAB Petition for Inter Partes Review
Subject Matter: Cryptographic protocols
Reports: 1 declaration submitted February 2021

On behalf of Magic Micro in Monsoon v. Magic Micro (2020-2021)
Counsel: Gutnicki, LLP
Venue: International Centre for Dispute Resolution
Subject Matter: Blockchain, file storage

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|---|---|
| Reports: | 1 declaration submitted October 2020 |
| | 1 declaration submitted November 2020 |
| Testimony: | In arbitration December 2020 |

On behalf of Juniper in Juniper Networks Inc. v. Huawei Digital Technologies Co. (2020-Present)

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|---|---|
| Counsel: | Irell and Manella, LLP |
| Venue | PTAB Petition for Inter Partes Review |
| Subject Matter: | Network perimeter defense against malware |
| Reports: | 1 declaration submitted June 2020 |
| | 1 declaration submitted July 2021 |
| Deposition: | April 2021 |

On behalf of DivX in Netflix v. DivX (2020-Present)

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|---|---|
| Counsel: | Lowenstein & Weatherwax, LLP |
| Venue: | PTAB Petition for Inter Partes Review |
| Subject Matter: | Encryption of streaming media |
| Reports: | 1 declaration submitted May 2020 |
| | 1 declaration submitted December 2020 |
| | 1 declaration submitted April 2021 |
| Deposition | January 2021, February 2021 |

On behalf of Juniper in Juniper Networks Inc. v. Implicit LLC (2019-2020)

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|---|---|
| Counsel: | Irell and Manella, LLP |
| Venue: | PTAB Petition for Inter Partes Review |
| Subject Matter: | Packet classification |
| Reports: | 1 declaration submitted February 2020 |

On behalf of the Dealership class in Dealer Management Systems Antitrust Litigation (2019-Present)

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|---|---|
| Counsel: | Milberg Phillips Grossman LLP |
| Venue: | Case No. 18-cv-00864 (Northern District of Illinois) |
| Subject Matter: | Cybersecurity, risk assessment, third-party access |
| Reports: | 1 report submitted November 2019 |
| Deposition: | January 2020 |

On behalf of Symantec in the Trustees of Columbia University in the City of New York v. Symantec Corporation. (2018-Present)

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| Counsel: | Quinn Emanuel Urquhart & Sullivan, LLP |
| Venue: | Case No. Civil Action No. 3:13-cv-00808-JRS (Eastern District of Virginia) |
| Subject Matter: | Deception technologies, Honeypots |
| Reports: | 1 report submitted October 2019 |
| Deposition: | January 2020 |

On behalf of Proofpoint in Proofpoint Inc. v. Vade Secure (2019-2021)

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|---|---|
| Counsel: | Quinn Emanuel Urquhart & Sullivan, LLP |
| Venue: | Case No. 3:19-cv-04238 (Northern District of California) |
| Subject Matter: | Cloud-based email, malware detection, AI |
| Reports: | 1 report submitted September 2019, 1 report submitted December 2019 |
| | 1 report submitted February 2021, 1 report submitted April 2021 |

Deposition: April 2021
In Court: Expert testimony August 2021

On behalf of Bitdefender in Finjan Inc. v. BitDefender Inc. (2018-2021)

Counsel: Susman Godfrey LLP
Venue: Case No. 4:17-cv-4790-HSG (Northern District of California)
Subject Matter: Web threat detection, malware, gateways
Reports: 1 report submitted July 2019, 1 report submitted August 2019
Depositions: October 2019

On behalf of HTC in Koninklijke Philips N.V., US Philips Corporation v. HTC Corp., HTC America Inc. (2019-2020)

Counsel: Perkins Coie LLP
Venue: Case No. 4:18-cv-01887-HSG (Northern District of California)
Subject Matter: Cryptographic protocols
Reports: 1 report submitted May 2019, 1 report submitted June 2019
Depositions: August 2019

On behalf of Juniper in Juniper Networks Inc. v. Finjan Inc. (2018-2019)

Counsel: Irell and Manella, LLP
Venue: PTAB Petition for Inter Partes Review
Subject Matter: Malware, firewall/gateway, network security
Reports: 4 declarations submitted October 2018
Depositions: June 2019

On behalf of Redbox in Disney Enterprises, Inc., LucasFilm Ltd, LLC, and MVL Film Finance LLC v. Redbox Automated Retail, LLC. (2018)

Counsel: Robins Kaplan LLP
Venue: Case No. 2:17-cv-08655-DDP (AGRx) (Central District of California, Western Division)
Subject Matter: DRM, cloud security, media streaming
Reports: 1 declaration submitted May 2018

On behalf of Trend Micro in Trend Micro, Inc. v. Security Profiling, LLC (2017-2018)

Counsel: The Marbury Law Group, PLLC
Venue: Inter Partes Review Case No. IPR2017-02191 and IPR2017-02192
Subject Matter: Automated security patches
Reports: 2 declarations submitted September 2017
Depositions: June 2018

On behalf of TeleSign in Twilio Inc. v. TeleSign Corporation (2016-2021, multiple cases)

Counsel: Shook, Hardy & Bacon LLP
Venue: Inter Partes Review Case No. IPR2016-01688, IPR2016-00360, IPR2017-01976 IPR2017-01977, IPR2017-01978
Case No. 5:16-cv-6925-LHK (Nor. District of California, San Jose Div.)
Subject Matter: Telecommunications security
Reports: 1 declaration submitted August 2016, May 2017, and July 2017
Depositions: November 2016, July 2017, August 2017

On behalf of Blue Coat in Finjan Inc. v. Blue Coat Systems LLC (2017-2018)

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| Counsel: | Originally Wilson, Sonsini, Goodrich and Rosati PC; later Morrison & Foerster LLP |
| Venue: | Case No. 15-cv-03295-BLF-SVK (Nor. District of California, San Div.) |
| Subject Matter: | Firewalls, gateway, security devices, malware |
| Reports: | 1 report submitted April 2017 |
| Depositions: | April 2017 |
| In Court: | Tech tutorial February 2017, expert testimony November 2017 |

On behalf of Sedosoft in Sedosoft Inc. v Mark Burchett LTD and NFSx9 LLC (2016)

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| Counsel: | McInnes and McLane LLP |
| Venue: | Case No. Civil Action No. 1:15-cv-10244-RGS (District of Massachusetts) |
| Subject Matter: | Code theft |
| Reports: | 1 report submitted May 2016 and August 2016 |

On behalf of USAA in Asghari-Kamrani, et al. v. United Services Automobile Association, Inc.

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|---|---|
| Counsel: | Fish and Richardson PC |
| Venue: | Inter Partes Review Case No. IPR2015-01842, and CBM2016-00063, CBM2016-00064 |
| Subject Matter: | Applied cryptography, authentication |
| Reports: | 1 report submitted September 2015, 1 report submitted April 2016 |
| Depositions: | March 2017 |

On behalf of WTS Paradigm in WTS PARADIGM, LLC v EDGEAQ, LLC (2015-2016)

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|---|---|
| Counsel: | Quarles & Brady LLP |
| Venue: | Case No. 3:15-CV-330 (Western District of Wisconsin) |
| Subject Matter: | Software-assisted product configuration, presentation, and ordering |
| Reports: | 1 report submitted March 2016 |
| Depositions: | April 2016 |

On behalf of Mr Leon Stambler in Mr. Leon Stambler v Mastercard IPR (2015-2016)

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|---|---|
| Counsel: | Flachsbart & Greenspoon, LLC |
| Venue: | CBM2015-00044 |
| Subject Matter: | Authentication, authentication codes |
| Reports: | 1 declaration submitted October 2015 |
| Deposition: | December 2015 |

On behalf of Trusteer/IBM in Trusted Knight Corporation v. International Business Machines Corporation and Trusteer, Inc. (2015)

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|---|---|
| Counsel: | Quinn Emanuel Urquhart & Sullivan LLP |
| Venue: | C.A. No. 14-1063 LPS-CJB (District of Delaware) |
| Subject Matter: | Key logging, protections against |
| Reports: | 1 declaration submitted July 2015 |

On behalf of Sensus in Sensus USA, Inc. v. Certified Measurement, LLC (2015)

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|---|---|
| Counsel: | Feldman Gale PA |
| Venue: | Inter Partes Review Case No. IPR2015-01262, IPR2015-01311, IPR2015-01439, IPR2015-01454<br>Case number 3:14-cv-01069 (District of Connecticut) |

Subject Matter: Applied cryptography, certification of data
Reports: 1 declaration submitted June 2015, 4 declarations submitted July 2015

On behalf of Chad Eichenberger in Chad Eichenberger v. ESPN (2015)
Counsel: Edelson PC
Venue: Case No. 2:14-cv-00463 (Western District of Washington)
Subject Matter: Consumer privacy
Reports: 1 declaration submitted January 2015

On behalf of Optimum Content Protection in Microsoft Corporation v. Optimum Content Protection LLC. (2014)
Counsel: Sidley Austin LLP
Venue: Inter Partes Review No. IPR2015-00048
Subject Matter: DRM, data streaming, protection
Reports: 1 declaration submitted October 2014

On behalf of Fortinet in Fortinet v. Sophos (2014-2015, multiple cases)
Counsel: Quinn Emanuel Urquhart & Sullivan LLP
Venue: Inter Partes Review No. IPR2015-00618
Case No. 3:13-cv-05831-EMC (DMR) (Nor. District of California, SF div.)
Case No. 1:14-cv-00100-GMS (District of Delware)
Subject Matter: Antivirus, anti-malware
Reports: 2 declarations submitted September 2014, 1 submitted September 2015
1 report submitted October 2015, November 2015
Depositions: October 2014, October 2015
In Court: Tech tutorial December 2015

On behalf of Afilias in Afilias PLC v Architelos Inc and Alexa Raad (2015)
Counsel: Haynes Boone LLP
Venue: Case No. 1:15-cv-00014-LMB-JFA (Eastern District of Virginia)
Subject Matter: Domain name system anti-abuse
Reports: 1 report submitted April 2015, May 2015
Depositions: June 2015
In Court: Expert testimony August 2015

On behalf of Telit in M2M v. Motorola, Telit (2015-2016)
Counsel: Pearl Cohen Zedek Latzer Baratz LLP
Venue: Case No. 12-033-RGA (District of Delaware)
Subject Matter: Authentication
Reports: 1 declaration submitted May 2014,
1 report submitted July 2014, August 2014
Depositions: June 2015

On behalf of Rmail/Rpost in Rmail Limited, v. Amazon.com, Inc., and Paypal and Rmail Limited, Rpost Communications Limited, and Rpost Holdings Inc., v.Docusign, Inc. (2013-2014)
Counsel: Hudnell Law Group PC
Venue: Case No. 2:10-CV-258-JRG (Lead Case)
Case No. 2:11-CV-299-JRG (Member Case) (E.D. Texas)
Subject Matter: Email security

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|---|---|
| Reports: | 2 reports April 2013, 1 declaration June 2013 |
| Depositions: | May 2013 (2 days) |

On behalf of Via Vadis in Via Vadis v. Skype (2012-2014)

| | |
|---|---|
| Counsel: | WTP Law |
| Venue: | Via Vadis v. Skype, Case No. 11-507 (RGA) (District of Delaware) |
| Subject Matter: | P2P communications |
| Reports: | 1 affidavit December 2012 |