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EDUCATION	Ph.D., Duke University, Computer Science, May 1990. B.S., Clemson University, Computer Science, summa cum laude, May 1986.
RECOGNITION AND AWARDS	Virginia Bioinformatics Faculty Fellow 1st prize and Honorable Mention at AOL-CIT Research Day Virginia Tech College of Engineering Dean's List for Teaching NSF CAREER Award University of Tennessee Science Alliance Award Atanasoff Best Paper Award Gordon Bell Prize Von Neumann Fellowship R. F. Poole Scholarship National Merit Scholar
EXPERT TESTIMONY	Blackboard v. Desire2Learn United States District Court for the Eastern District of Texas *Overview*: Patent infringement case involving Internet-based educational software employing role-based access control *Testified*: Jury trial (infringement and validity), injunction hearing, contempt hearing, and deposition (4 times) TechRadium v. Blackboard United States District Court for the Eastern District of Virginia

United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving network-based emergency notification systems
Testified: Preliminary injunction hearing and deposition

Computer Associates v. Digex
Circuit Court for Prince George's County Maryland
Overview: Contract dispute involving enterprise management systems
Testified: Jury trial and deposition

Computer Associates v. Retired Persons Services
United States District Court for the Eastern District of Virginia
Overview: Contract dispute involving enterprise management systems
Testified: Deposition

DVSI v. University of Phoenix and Walden University
United States District Court for the Eastern District of Virginia
Overview: Patent infringement case involving network-based educational software employing digital rights management
Testified: Deposition (3 days)

VirnetX v. Microsoft
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving VPN software in Microsoft Windows and Microsoft's Unified Communications software
Testified: Jury trial (infringement and validity) and deposition (3 days)

TechRadium v. Twitter
United States District Court for the Southern District of Texas
Overview: Patent infringement case involving network-based notification systems
Testimony: Deposition

Bedrock Computer Tech v. Softlayer et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving data structures in the Linux operating system's network stack
Testimony: Jury trial v. Google (infringement and validity), Jury trial v. Yahoo (infringement and validity) and deposition (3 days)

CEATS v. Continental Airlines et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving Web-based interactive seat maps
Testimony: Jury trial (infringement and validity) and deposition (2 days)

VirnetX v. Cisco et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving secure communications, VPNs, and Voice-over-IP
Testimony: Jury trial v. Apple (infringement and validity), Jury trial v. Cisco (validity), and deposition (3 days), 2nd jury trial v. Apple (infringement), 3rd jury trial v. Apple (infringement), 4th jury trial v. Apple (infringement), 5th jury trial v. Apple

Summit6 v. Research In Motion et al
United States District Court for the Northern District of Texas

Overview: Patent infringement case involving network-based photo uploading tools on smartphones and web browsers
Testimony: Jury trial v. Samsung (infringement and validity) and deposition (3 days)

Ericsson v. Samsung
International Trade Commission
Overview: Patent infringement case involving Java technology and touchscreen technology on smartphones
Testimony: Deposition

AT Engine Controls LTD. v. Goodrich Corp and Goodrich Pump & Engine Control Systems, Inc.
United States District Court for the District of Connecticut
Overview: Trade secret case involving an embedded computing system design for helicopter engine control
Testimony: Deposition

SmartFlash LLC. v. Apple, et. al.
SmartFlash LLC. v. Samsung, et. al.
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving digital rights management and content distribution
Testimony: Jury trial v. Apple (infringement and validity) and deposition (4 days)

Unwired Planet v. Apple
United States District Court for the Northern District of California
Overview: Patent infringement case involving several technologies related to mobile devices
Testimony: Deposition (3 days); technology tutorial presentation to the Court

Facebook v. Rembrandt Social Media
Patent Trial and Appeal Board
Overview: Validity of a patent in the area of a web-based diary system
Testimony: Deposition

Motorola Mobility v. Intellectual Ventures
Patent Trial and Appeal Board
Overview: Validity of a patent in the area transmitting and browsing preformatted information
Testimony: Deposition

Summit6 v. Apple et al
United States District Court for the Northern District of Texas
Overview: Patent infringement case involving network-based photo uploading tools on smartphones and web browsers
Testimony: Deposition

EMC v. Pure Storage et al
United States District Court for the District of Delaware
Overview: Patent infringement case involving memory systems
Testimony: Deposition and jury trial (infringement and validity)

Parallel Networks v. IBM
United States District Court for the District of Delaware

Overview: Patent infringement case involving web servers and load balancing
Testimony: Deposition (2 days)

Parallel Networks v. Microsoft
United States District Court for the District of Delaware
Overview: Patent infringement case involving web servers and load balancing
Testimony: Deposition (2 days) and jury trial (infringement and validity)

Microsoft and IBM v. Parallel Networks
Patent Trial and Appeal Board
Overview: Validity of a patent related to web servers and load balancing
Testimony: Deposition

adidas v. UnderArmour
United States District Court for the District of Delaware
Overview: Patent infringement case involving fitness tracking
Testimony: Deposition

BMC Software v. ServiceNow
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving enterprise management software
Testimony: Deposition

Ericsson v. TCL
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving Java technology and security on smartphones
Testimony: Deposition (3 days) and jury trial (infringement)

REM v. Square
United States District Court for the Eastern District of Missouri
Overview: Intellectual property case involving credit card readers for smartphones
Testimony: Deposition

AARC v. Chrysler et al
United States District Court for the District of Columbia
Overview: Intellectual property case involving car infotainment systems
Testimony: Deposition

Spex Technologies v. Apricorn
United States District Court for the Central District of California
Overview: Patent infringement case involving secure memory devices
Testimony: Deposition, Jury trial

United States Conference of Mayors v. Great-West Life Annuity Insurance Co.
United States District Court for the District of Columbia
Overview: Contract dispute
Testimony: Deposition and jury trial

Tecsec, Inc. v. Adobe Systems Inc. and Oracle (listed as IBM, et.al.).
United States District Court for the Eastern District of Virginia
Overview: Patent infringement case involving secure object technology
Testimony: Adobe: Deposition and jury trial (infringement and validity); Oracle (deposition)

Egenera, Inc. v. Cisco Systems, Inc.
United States District Court for the District of Massachusetts
Overview: Patent infringement case involving an architecture for a processing platform
Testimony: Deposition, bench trial, and jury trial

Unified Patents v. Sound View Innovations
Patent Trial and Appeal Board
Overview: Validity of a patent related to concurrency control
Testimony: Deposition

Hulu v. Sound View Innovations
Patent Trial and Appeal Board
Overview: Validity of a patent related to concurrency control
Testimony: Deposition

Grace and Potter. v. Apple Inc.
United States District Court for the Northern District of California
Overview: Class action case involving FaceTime
Testimony: Deposition

HTC v. Ericsson
United States District Court for the Eastern District of Texas
Overview: Patent licensing related to cellular standards
Testimony: Deposition

Windy City.Innovations v. FaceBook, Inc..
United States District Court for the Northern District of California
Overview: Patent infringement case involving an architecture for a messaging platform
Testimony: Deposition

Hulu v. Sound View Innovations
Patent Trial and Appeal Board
Overview: Validity of a patent related to real time systems
Testimony: Deposition

Citrix Systems, Inc. v. Avi Networks, Inc..
United States District Court for the District of Delware
Overview: Patent infringement case involving network devices
Testimony: Deposition

Rovi v. Comcast
International Trade Commission
Overview: Patent infringement case set top boxes
Testimony: Deposition, Trial

Seven Networks v. Apple
United States District Court for the Eastern District of Texas
Overview: Patents related to mobile device push-based communication
Testimony: Deposition

Match Group, LLC v. Bumble Trading Inc.
United States District Court for the Western District of Texas
Overview: Patents related to online dating apps
Testimony: Deposition

SAS Institute Inc. v. World Programming Limited, et. al.
United States District Court for the Eastern District of Texas
Overview: Copyright and patents related to statistical software
Testimony: Deposition, Bench trial

Allscripts Healthcare, LLC v. Decision Resources Group,
United States District Court for the District of Massachusetts
Overview: Contract dispute
Testimony: Deposition, jury trial

Clear Imaging v. Samsung
United States District Court for the Eastern District of Texas
Overview: Patents related to image processing
Testimony: Deposition

Nokia v. Lenovo
International Trade Commission
Overview: Patents related to video encoding
Testimony: Deposition

Dish Network v. Sound View Innovations
Patent Trial and Appeal Board
Overview: Validity of a patent related to scheduling for QoS
Testimony: Deposition

Dish Network v. Sound View Innovations
Patent Trial and Appeal Board
Overview: Validity of a patent related real-time multimedia applications
Testimony: Deposition

RFCyber v. Samsung
United States District Court for the Eastern District of Texas
Overview: Patents related to secure payment systems
Testimony: Deposition

RightQuestion LLC v. Samsung
United States District Court for the Eastern District of Texas
Overview: Patents related to hardware-based authentication
Testimony: Deposition

Daedalus Blue, LLC v. MicroStrategy Inc.
United States District Court for the Eastern District of Virginia, Norfolk Division
Overview: Patent infringement case involving business intelligence software
Testimony: Deposition

Seven Networks v. Motorola Mobility LLC,
United States District Court for the Eastern District of Texas
Overview: Patents related to mobile device communication methods
Testimony: Deposition

HID Global Corp. v. Vector Flow Inc. and Ajay Jain, Vikrant Ghai, and Shailendra Sharma
United States District Court for the District of Delaware
Overview: Patents related to security monitoring

Testimony: Deposition

YouToo Technologies**, LLC**, v. Twitter, Inc.
United States District Court for the Northern District of Texas Dallas Division
Overview: Patents related to video
Testimony: Deposition

Constellation Designs, LLC v. LG Electronics, Inc., LG Electronics USA, Inc., and LG Electronics Alabama, Inc.
U.S. District Court, Eastern District of Texas, Marshall Division
Overview: Patents related to digital communication systems
Testimony: Deposition

Ryan Hardin, et al. v. Samsung Electronics Co., LTD., et al.
U.S. District Court, Eastern District of Texas, Marshall Division.
Overview: Patents related to geofencing
Testimony: Deposition

Xerox, ACS Transport Solutions, Conduent and New Jersey Transit v. Bytemark, Inc.
Patent Trial and Appeal Board
Overview: Validity of a patent related to mobile ticketing
Testimony: Deposition

Motista LLC v. Ernst and Young LLP
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Overview: Matters related to trade secrets
Testimony: Hearing

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Mark Jones and Paul Plassmann, "Recent Results in the Modeling of Type-II Superconductors on Massively Parallel Computers," *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing*, pp. 147-151, 1993.

Mark Jones and Paul Plassmann, "Parallel Solution of Unstructured, Sparse Systems of Linear Equations*," Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing*, pp. 471-475, 1993.

Tom Canfield, Mark Jones, Paul Plassmann, and Michael Tang, "Thermal Effects on the Frequency Response of Piezoelectric Crystals," *New Methods in Transient Analysis*, Eds. P. Smolinksi, W. K. Liu, G. Hulbert, and K. Tamma, PVP-Vol. 246 and AMD-Vol. 143, pp. 103-108, ASME, New York, 1992.

Mark Jones and Paul Plassmann, "The Effect of Many Color Orderings on the Convergence of Iterative Methods," *Proceedings of the Copper Mountain Conference on Iterative Methods*, April 1992.

Mark Jones and Paul Plassmann, "Modeling piezoelectric crystals on the Intel DELTA," *Proceedings of the Intel DELTA Applications Workshop*, Cal Tech, pp. 97-105, 1992.

RESEARCH GRANTS

NASA, "Phase II: Integrated Sensors for the Evaluation of Structural Integrity of Inflatable Habitats," with NanoSonic, $180,000, 9/25/17-9/24/19.

NSF, "SCH: INT: Collaborative Research: Smart Wearable Systems to Support and Measure Movement in Children With and Without Mobility Impairments," $326,658, 10/1/17-9/30/21.

NASA, "Integrated Sensors for the Evaluation of Structural Integrity of Inflatable Habitats," with NanoSonic, $35,000, 9/1/2016-8/31/17.

NSF, "SHB: Small: Collaborative Research: Electronic textiles for ambulatory health monitoring," $306,083, 7/1/2011-6/30/2014.

DARPA, "RECE," With BBN, $30,000, 4/16/09-10/16/09.

NSF, "Investigating a Novel Embedded Processor Architecture for Electonic Textiles in Wearable and Pervasive Computing," $220,000, 12/1/08-11/30/10.

NSF, "Fundamental Algorithms to Enable the Simulation of Multi-Scale Biological Systems," $200,000, 9/1/07-8/31/10.

AFRL, "Phase II: Amorphous Soft-Core Processor for Hardware Anti-Tamper," ~$230,000, 11/1/06-10/31/08.

Intel, "E-Textile Rug for Gait Analysis, People Tracking and Emergency Directions," $15,000, 6/1/06-12/31/06.

Carilion, "Quantitative Measurement and Modeling of Early Events in Influenza Pathogenesis," $20,000, 7/1/05-6/30/06.

AFRL, "Phase I: Wearable Computer for Enhanced Situation Awareness," $30,000, 5/1/06-1/1/07.

AFRL, "Phase I: Amorphous Soft-Core Processor for Hardware Anti-Tamper," $35,000, 1/1/06-11/1/06.

MDA, "Phase I: Secure Software Platform for Real-Time Software Anti-Tamper," $29,994, 6/1/06-11/1/06.

National Science Foundation (NSF), "CRI", (e-textiles equipment), ~$80,000, 8/05-7/07.

Harris Corporation, "Exploiting the Reconfigurability of a Software-Defined Radio Platform," $161,070, 9/1/05-6/30/06.

DARPA, "Phase I: Technology for Trusted Circuits," $31,000, 3/1/05-9/15/05.

Harris Corporation, "Partial Reconfiguration Support for the Harris Programmable Modem Platform," $73,448, 12/01/04-6/30/05.

NSF, "Phase I: An Electronic Textile System for Gait Analysis", $33,000, 1/1/2005-6/30/2005.

*Office of Naval Research (*ONR). "AWINN." $452,300, 12/20/04-7/31/06.

Office of Secretary of Defense, "Phase II: Reconfigurable Processor Technology for Software Protection," SBIR Subcontract with Luna Innovations, $237,581, 6/04-5/06.

NSF, REU Supplement to ITR: Tailor-Made: Design of e-Textile Architectures for Wearable Computing, NSF, $12,000, 6/1/2005 – 8/31/2005.

Office of Secretary of Defense, "Phase I: Reconfigurable Processor Technology for Software Protection," SBIR Subcontract with Luna Innovations, $33,000, 8/03-2/04.

National Science Foundation (NSF), "ITR: Tailor-Made: Design of e-Textile Architectures for Wearable Computing", $399,000, 8/02-8/06.

NSF, REU Supplement to above grant, $10,000.

NSF, REU Supplement to above grant, $6,000.

NSF, "A Toolbox of Scalable Algorithms and Software for Advanced Scientific Computing Applications", $300,000, 4/03-4/06.

*Defense Advanced Research Projects Agency (*DARPA). Computational Fabrics, $217,000, 3/01-12/02. Subcontract from ISI/University of Southern California.

*Office of Naval Research (*ONR). Secure Configurable Radio. $751,000, 4/00-4/04.

NSF, SUCCEED, $33,000, 9/1/01-8/31/02.

National Science Foundation (NSF). Parallel unstructured mesh algorithms, Amount: $145,023, 10/99-9/02.

DARPA, Development of algorithms and software for the control of distributed, dynamic sensor networks, Amount $411,625, 6/99-6/02.

DARPA, Subcontact with USC/ISI. Development of algorithms and runtime software for systems of configurable computers, Amount $160,000, 10/00-10/01.

Department of Energy, Development of algorithms and software for massively parallel architectures, Amount: $145,000, 12/98-11/01.

DARPA, Development of Java-based tools and applications for fast, flexible run-time reconfiguration of configurable computing devices, Amount: $345,574, 9/99-9/01.

DARPA, Development of an application programming interface, algorithms, and applications for run-time reconfiguration on novel adaptive computing architectures, Amount: $250,000, 6/99-6/01.

Lockheed-Martin/Sanders, A Wireless Link for Remote Telemetry of Compact Airborne System, $125,000, 5/00-4/01.

DARPA, Development of algorithms and runtime software for systems of configurable computers, Amount $169,792, 11/99-10/00.

National Security Agency (NSA), Software for the translation of JBits FPGA programs to EDIF programs, Amount $75,000, 9/99-7/00.

DARPA, Construction of an API & applications for the control of distributed systems of configurable computing nodes, Amount $162,886, 9/98-10/99.

NSF, Career Award: Parallel algorithms and software for unstructured mesh computations, Amount: $125,881, 7/96-7/99.

Air Force Research Laboratory, Research and development of an Internet-based, interactive, decision making program, Amount: $97,425, 11/97-5/99.

NSF, Equipment funding for a 16-node cluster of configurable computers, Amount: $85,000, 12/97-12/98.

NSF, Scientific applications in a distributed computing environment, Amount: $318,807, 7/95-7/98.

NSF, Equipment funding for an ATM-based cluster of workstations, Amount, $100,000, 1/96-12/96.

NSF, Workshop organized at Argonne National Laboratory, Amount, $10,000, 1996.

PATENTS

Inventor, United States Patent No. 8,473,754, Hardware-Facilitated Secure Software Execution Environment.

SOFTWARE

SLAAC/ACS API (4/99): Software for the control of complex systems of configurable computing nodes and high-speed networks. This code is being distributed to the ACS community. Developed in Configurable Computing Laboratory with Peter Athanas.

BlockSolve (4/93 & 1/96): Software for solving large sparse linear systems on distributed memory architectures. This code has been distributed via netlib and ANL ftp and has been accessed by several hundred people as of 4/4/99. Developed at Argonne National Laboratory with Paul Plassmann.

LANZ (10/90): Software for solving the generalized eigenproblem on shared memory architectures. This code has been distributed via netlib and NASA and has been accessed by over 10,000 people as of 4/4/99. Developed at Duke University and Argonne National Laboratory with Merrell Patrick.

TEACHING RESPONSIBILITIES

Computer Programming
- ECE 5574, *Advanced Software Development for CAE*
- ECE 4574, *Large-Scale Software Development for Engineering Systems*
- ECE 3574, *Applied Software Design*
- ECE 2574, *Data Structures*
- ECE 1574, *Engineering Problem Solving with C++*

Computer Simulation and Modeling
- *CS 371, Numerical Analysis*
- *CS 594, Computational Modeling*

Computer Network, Architecture, and Organization
- ECE 2504, *Introduction to Computer Engineering*
- *CS 594, Internetworking with TCP/IP*
- ECE 4504, *Computer Organization*
- ECE 4534*, Design of Embedded Systems*
- ECE 5504 (formerly ECE 5515), *Computer and Network Architectures*
- ECE Special Studies: *Configurable Computing*, E-Textiles
- ECE 5984, *Java-Based Configurable Computing*
- ECE 6504, *Applications of Parallel and Distributed Computing*, TV course.
- CS 530, *Computer Systems Organization*

CEO of DISC, a student-run virtual corporation, for Fall 1998 and Spring 1999.