

DATE	This document was prepared on May 30, 2016.	
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ACADEMIC POSITIONS	<b>Sonoma State University</b> , Rohnert Park, CA Associate Professor of Computer Science (tenured) Assistant Professor of Computer Science	2014–present 2008–2014
EDUCATION	<b>Ph.D. in Electrical Engineering</b> , Stanford University Dissertation: <i>Models and Metrics for Energy-Efficient Computer Systems</i> Advisor: Christos Kozyrakis	2008
	<b>M.S. in Electrical Engineering</b> , Stanford University	2003
	<b>B.S. in Electrical Engineering</b> (Highest Honors), University of Texas-Austin	2001
TEACHING EXPERIENCE	<b>Sonoma State University</b> <ul style="list-style-type: none"> <li>• <i>Instructor</i>, CS 115: Programming I Spring 2015 and 10 prior semesters</li> <li>• <i>Instructor</i>, CS 210: Introduction to Unix Fall 2010</li> <li>• <i>Instructor</i>, CS 215: Programming II Spring 2011, Fall 2010</li> <li>• <i>Instructor</i>, CS 242: Discrete Structures Fall 2013</li> <li>• <i>Instructor</i>, CS 252: Computer Organization Spring 2010, Fall 2009</li> <li>• <i>Lab Instructor</i>, CS 315: Data Structures Fall 2015, Spring 2015</li> <li>• <i>Instructor</i>, CS 351: Computer Architecture Spring 2016 and 8 prior semesters</li> <li>• <i>Instructor</i>, CS 355: Database Management Systems Design Spring 2009</li> <li>• <i>Instructor</i> and <i>Course Creator</i>, CS 385: Multicore and Manycore Programming Spring 2013, Spring 2009</li> <li>• <i>Instructor</i>, CS 425: Parallel Computing Fall 2015</li> <li>• <i>Instructor</i>, CS 450: Operating Systems Spring 2016</li> <li>• <i>Instructor</i>, ES 210: Digital Circuit &amp; Logic Design Spring 2012</li> <li>• <i>Lab Instructor</i>, SCI 120A: Sustainability in My World Fall 2012</li> </ul>	
	<b>Stanford University</b> <ul style="list-style-type: none"> <li>• <i>Co-Instructor</i>, EE 282: Computer Systems Architecture Spring 2007 Graduate lecture course offered in-person and through the distance learning program at Stanford Center for Professional Development</li> <li>• <i>Grader</i>, EE 275: Logic Design Winter 2004</li> <li>• <i>Grader</i>, EE 182: Computer Architecture Fall 2002</li> </ul>	
	<b>University of Texas at Austin</b> <ul style="list-style-type: none"> <li>• <i>Grader</i>, EE 345L: Microprocessor Design Lab Fall 2000</li> <li>• <i>Tutor</i>, Women in Engineering Program Fall 1999–Spring 2001</li> </ul>	
STUDENTS SUPERVISED	<b>Graduate Thesis</b> <i>Early Classification of Application Power Traces</i> , Jorge Cabrera MS, Computer & Engineering Science	Expected 9/2016

## Senior Research Projects

- *MIPS Single-Cycle Processor Visualization*, Mark Ayala Spring 2016
- *MIPS ISA Emulator*, Matt Smith Spring 2016
- *Fine-grained application power and performance signatures*, Scott Walker Spring 2016
- *Updating Legacy Power Modeling and Measurement Software*, Alex Madias Fall 2015
- *Comparing Mechanisms for Inter-Core Register Accesses*, Marty McFadden Fall 2015
- *Energy-Efficient Scheduling Simulation*, Kelsey Rangel Spring 2015
- *Power Signature Clustering and Classification*, Jacob Combs Spring 2014
- *Power Signature Analysis in the Frequency Domain*, David Tran Spring 2014
- *Power Signature Analysis*, Matt Hardwick Spring 2013
- *Power Modeling with GPUs*, Ben Morrison Spring 2009

## External Student Research Competition Participants

- Power Signature Analysis of Supercomputing Applications*, Rachele Thysell  
Grace Hopper Celebration of Women in Computing 2014
- Classification of Supercomputing Applications by Power Consumption*, Jolie Nazor  
Consortium for Computing Sciences in Colleges Southwestern Regional Conference  
(CCSC-SW) student poster session 2014
- Characterizing the Power Consumption of Supercomputing Applications*, Jacob Combs  
and Matthew Hardwick  
CSU undergraduate Student Research Competition 2013
- Modeling the Power Consumption of Computer Systems with Graphics Processing Units  
(GPUs)*, Stephanie Schmidt
- Grand Finalist, worldwide undergraduate ACM Student Research  
Competition (one of 14 undergraduates) 2012
  - CSU undergraduate Student Research Competition 2012
  - Third place undergraduate, ACM Student Research Competition 2012  
held at the SIGCSE Technical Symposium on Computer Science Education

## Research Assistants

- Power Signature Analysis* 2012–present  
21 SSU undergrads, 2 high school interns  
Funded by Oak Ridge National Laboratory, the Computing Research Association, and  
internal SSU funds
- Source Code Stylometry* Summer 2015  
2 SSU undergrads  
Funded by SSU Research, Scholarship, and Created Activity Program (RSCAP)
- Evaluating the Effectiveness of Program Visualization Tools* Summer 2012  
(co-PI with Elizabeth Giuliani)  
2 high school interns  
Funded by SSU/Sonoma County Office of Education Summer High School Internship  
Program
- Modeling the Power Consumption of Computer Systems  
with Graphics Processing Units* Summer 2009–Fall 2011  
3 SSU students, 2 high school interns  
Funded by Computing Research Association Collaborative Research Experiences for  
Undergraduates (CREU) program and SSU internal funds

## Undergraduate Course Assistants

- CS 115W student workshop instructors: 16 students over 11 semesters
- CS 115 lab assistants: 18 students over 7 semesters
- CS 315 lab assistants: 3 students over 2 semesters

## TEACHING ACTIVITIES

### Faculty Learning Communities

- Member of pilot faculty cohort for multi-campus, NSF-funded “Reinventing the College Lecture” project for active learning in STEM Spring 2014–Spring 2015
- Member of Faculty Learning Community for multi-campus, US Department of Education-funded EnACT~PTD project (Ensuring Access through Collaboration and Technology Partnerships, Technology & Dissemination). The community consists of 5 faculty members working on implementing Universal Design for Learning and accessibility technology in their classrooms. Spring 2009–Spring 2011
- Member of Sonoma State University’s Moodle Pilot Project to reinvent the Introduction to Unix course using the Moodle course management system (one of 14 faculty selected) Fall 2010

### Selected Workshops and Courses

- “Making the Most of Undergraduate Research” workshop, ACM SIGCSE Technical Symposium on Computer Science Education Mar. 2013
- “Developing a Hands-on Undergraduate Parallel Programming Course with Pattern Programming” workshop, ACM SIGCSE Technical Symposium on Computer Science Education Mar. 2013
- Multicultural Competency Workshop, SSU School of Science and Technology Feb. 2010
- Moodle Overview and Faculty Demonstration Panel, SSU Feb. 2010
- Course Accessibility Makeover Program, SSU June 2009
- Universal Design for Learning for Enhanced Student Engagement and Expression, SSU Center for Teaching and Professional Development Mar. 2009
- Process Oriented Guided Inquiry Learning in the Classroom (POGIL), SSU Sep. 2008
- Teaching Problem Solving, Stanford University Center for Teaching and Learning Feb. 2008
- The Art of Asking Questions, Stanford University Center for Teaching and Learning Oct. 2008
- Managing Groups and Teams, Stanford Graduate Summer Institute Sep. 2008

**Peer-Reviewed Publications**

- Scogland, T., Azose, J., Rohr, D., Rivoire, S., Bates, N., and Hackenberg, D. Node variability in large-scale power measurements: perspectives from the Green500, Top500 and EEHPCWG. In *Proceedings of the International Conference on High Performance Computing, Networking, Storage and Analysis (SC)* (Austin, TX, Nov. 2015). Acceptance rate: 22%.  
doi:10.1145/2807591.2807653
- Combs, J.\*, Nazor, J.\*, Thysell, R.\*, Santiago, F.\*, Olson, L.\*, Hardwick, M.\*, Rivoire, S., Hsu, C.-H., and Poole, S.W. Power signatures of high-performance computing workloads. In *Proceedings of the 2nd Workshop on Energy-Efficient Supercomputing (E2SC)* (New Orleans, LA, Nov. 2014).  
doi:10.1109/E2SC.2014.9
- Hsu, C.-H., Combs, J.\*, Nazor, J.\*, Santiago, F.\*, Thysell, R.\*, Rivoire, S., and Poole, S.W. Application power signature analysis. In *Proceedings of the 10th Workshop on High-Performance, Power-Aware Computing (HPPAC)* (Phoenix, AZ, May 2014).  
doi:10.1109/IPDPSW.2014.90
- Davis, J.D., Rivoire, S., Goldszmidt, M., and Ardestani, E.K. CHAOS: Composable highly accurate OS-based power models. In *Proceedings of the IEEE International Symposium on Workload Characterization (IISWC)* (San Diego, CA, Nov. 2012), pp. 153–163. Acceptance rate: 38%.  
doi:10.1109/IISWC.2012.6402920
- Davis, J.D., Rivoire, S., Goldszmidt, M., and Ardestani, E.K. Including variability in large-scale cluster power models. *Computer Architecture Letters*, 11, 2 (Jul.–Dec. 2012), pp. 29–32. [condensed version of EXERT 2011]  
doi:10.1109/L-CA.2011.27
- Davis, J.D., Rivoire, S., Goldszmidt, M., and Ardestani, E. Accounting for variability in large-scale cluster power models. In *Proceedings of the 2nd Exascale Evaluation and Research Techniques Workshop (EXERT)* (Newport Beach, CA, Mar. 2011).
- Rivoire, S. Learning to teach. *IEEE Potentials*. 29, 4 (Jul./Aug. 2010), pp. 17–20.  
doi:10.1109/MPOT.2010.937461
- Keys, L., Rivoire, S., and Davis, J.D. The search for energy-efficient building blocks for the data center. In *Proceedings of the 2nd Workshop on Energy-Efficient Design* (St. Malo, France, June 2010).
- Rivoire, S. A breadth-first course in multicore and manycore programming. In *Proceedings of the 41st ACM SIGCSE Technical Symposium on Computer Science Education* (Milwaukee, WI, Mar. 2010), pp. 214–218. Acceptance rate: 34%.  
doi:10.1145/1734263.1734339
- Ranganathan, P., Rivoire, S., Moore, J. Models and metrics for energy-efficient computing. In *Advances in Computers, vol. 75: Computer Performance Issues*, M.V. Zelkowitz, Ed. Elsevier, Apr. 2009, pp. 159–233.  
doi:10.1016/S0065-2458(08)00803-6
- Rivoire, S., Ranganathan, P., Kozyrakis, C. A comparison of high-level full-system power models. In *Proceedings of the 1st Workshop on Power-Aware Computing and Systems (HotPower)* (San Diego, CA, Dec. 2008). Acceptance rate: 30%.

Rivoire, S., Shah, M.A., Ranganathan, P., Kozyrakis, C., Meza, J. Models and metrics to enable energy-efficiency optimizations. *IEEE Computer*. 40, 12 (Dec. 2007), pp. 39–48. doi:10.1109/MC.2007.436

Rivoire, S., Shah, M.A., Ranganathan, P., Kozyrakis, C. JouleSort: a balanced energy-efficiency benchmark. In *Proceedings of the ACM SIGMOD International Conference on Management of Data* (Beijing, China, June 2007), pp. 365–376. Acceptance rate: 15%. doi:10.1145/1247480.1247522

Rivoire, S., Schultz, R., Okuda, T., Kozyrakis, C. Vector lane threading. In *Proceedings of the International Conference on Parallel Processing* (Columbus, OH, Aug. 2006), pp. 55–64. Acceptance rate: 32%. doi:10.1109/ICPP.2006.74

Economou, D., Rivoire, S., Kozyrakis, C., Ranganathan, P. Full-system power analysis and modeling for server environments. In *Proceedings of the 2nd Workshop on Modeling, Benchmarking, and Simulation (MoBS)* (Boston, MA, June 2006), pp. 70–77. Acceptance rate: 47%.

### Invited Papers and Technical Reports

Davis, J.D., Rivoire, S., and Goldszmidt, M. Star-Cap: Cluster Power Management Using Software-Only Models.

- In *Proceedings of the 3rd International Workshop on Power-aware Algorithms, Systems, and Architecture (PASA)* (Minneapolis, MN, Sep. 2014). doi:10.1109/ICPPW.2014.27
- Expanded version: Microsoft Research Technical Report MSR-TR-2012-107 (Oct. 2012).

Davis, J.D., Rivoire, S., Goldszmidt, M., and Ardestani, E.K. No hardware required: Building and validating composable highly accurate OS-based power models. Microsoft Research Technical Report MSR-TR-2011-89 (Jul. 2011).

Davis, J.D. and Rivoire, S. Building energy-efficient systems for sequential I/O workloads. Microsoft Research Technical Report MSR-TR-2010-30 (Mar. 2010).

### Other

Rivoire, S. Women under-represented in science and technology. Editorial for Voices of Diversity series, *Sonoma State Star*, April 9, 2012.

TALKS,  
POSTERS,  
PANELS

### Invited Talks

- “Metrics and Models for Power-Aware Large-Scale Computing” Oct. 2015  
Electrical Engineering and Computer Science Technical Seminar Series, UC-Merced
- “Power-aware large-scale computing,” Oct. 2015  
California State University-Stanislaus (Turlock, CA)
- “Black-box characterization of computer systems’ power consumption,” Nov. 2014  
Computer Science Research Group meeting, Oak Ridge National Laboratory (Oak Ridge, TN)
- “Modeling and managing computers’ power consumption,” Mar. 2013  
SSU Engineering Science Lecture Series
- “Women in Science” series, SSU Library Mar. 2012
- “Generic full-system power modeling,” VMWare (Palo Alto, CA) Jan. 2011
- “Talks on Texts” series, SSU Library Oct. 2010
- “Energy-efficient computing,” SSU Environmental Studies Program Apr. 2010  
Energy Forum

- “A breadth-first course in multicore and manycore programming,” Stanford University Pervasive Parallelism Lab (Palo Alto, CA) Apr. 2010
- “Models and metrics for energy-efficient computer systems”
  - Accenture Technology Labs (San Jose, CA) Oct. 2008
  - Microsoft Research-Silicon Valley (Mountain View, CA) Jun. 2008
- “Real-time power modeling with Mantis and energy-efficiency benchmarking with JouleSort”
  - Microsoft Research-Redmond (Redmond, WA) Dec. 2007
  - Google (Mountain View, CA) Apr. 2007
  - UC-Berkeley RAD Lab retreat (Santa Cruz, CA) Jan. 2007

## Posters

Authors marked with \* were SSU students.

- SSU Science Symposium May 2016
  - Ayala, M.\* and Rivoire, S. “Visualizing the data path: What really happens in a processor?”
  - Smith, M.\* and Rivoire, S. “Efficient Implementation of Machine Code Interpreters for Software Emulation”
  - Walker, S.\* and Rivoire, S. “Towards Fine Grained Power and Performance Signatures of High Performance Computing Workloads”
- Rangel, K.\* and Rivoire, S. “Energy-Aware Scheduling in High-Performance Computing,” SSU Science Symposium May 2015
- Jaffe, K. E., Rivoire, S., and Wilson, P.\* “It Takes a Village: Building Environmental Enrichment for Lemurs at the Oakland Zoo Requires Interdisciplinary Collaboration”, SSU Faculty Research Exposition Apr. 2015
- Tran, D.\* and Rivoire, S., “Power Signature Analysis in the Frequency Domain,” SSU Science Symposium May 2014
- Nazor, J.\* and Rivoire, S., “Classification of Supercomputing Applications by Power Consumption,” SSU Faculty Exposition of Scholarship and Sponsored Research Mar. 2014
- Combs, J.\*, Hardwick, M.\*, and Rivoire, S.\*, “Characterizing the Power Consumption of Supercomputing Applications,” SSU School of Science and Technology Science Symposium May 2013
- Davis, J. D., Goldszmidt, M., Rivoire, S. and Ardestani, E.K., “Modeling and Managing the Power Consumption of Large-Scale Computing Facilities,” SSU Faculty Exposition of Scholarship and Sponsored Research Mar. 2013
- Schmidt, S.\* and Rivoire, S., “Modeling the power consumption of computer systems with graphics processing units (GPUs),” SSU Faculty Exposition of Scholarship and Sponsored Research Mar. 2012
- Rivoire, S., “Universal Design for Learning in CS1,” ACM SIGCSE Technical Symposium on Computer Science Education (Dallas, TX) Mar. 2011
- Rivoire, S. “Modeling computer systems’ power consumption”
  - SSU Faculty Exposition of Scholarship and Sponsored Research Mar. 2009
  - Computing Research Association Programming Languages, Operating Systems, and Architecture Workshop (Washington, DC) Mar. 2009

## Panels

- Lin, J., Mookerjee, M., Rivoire, S., Shi, H., Works, C. Undergraduate Research Panel, SSU-Agilent Summer Research Academy Jun. 2013
- Malpica, D. M., Mookerjee, M., Paolucci-Callahan, M., Parker, J., Rivoire, S. Mentor Faculty Panel, SSU New Faculty Orientation Aug. 2011
- Ayala, E., Bozman-Moss, D., Ely, K., Kroll, C., Rivoire, S., Severson, S., Wilson, B. “Universal Design for Learning Faculty Workshop,” SSU Disability Awareness Week May 2010

- Ayala, E., Christie, B., Rivoire, S., Severson, S., Wilson, B. “Universal Design and Accessibility (EnACT),” California State University “Meet the Experts” webinar series Apr. 2010
- Mitchell, A., Jain, J., Rivoire, S., Carmody, W., Albrecht, J., Grit, L. “Learning by doing: using internships to discover where you belong,” Grace Hopper Celebration of Women in Computing (Orlando, FL) Oct. 2007

#### Video and Press

- “College program gives young scientists lab time,” *Santa Rosa Press Democrat*, August 8, 2014. <http://www.pressdemocrat.com/home/2478175-181/college-program-gives-young-scientists> 2014
- Intel Teach Parallel series: “Introducing Undergraduates to Parallelism” <http://software.intel.com/en-us/blogs/2011/03/31/dr-susan-rivoire-introducing-undergraduates-to-parallelism/> 2011
- MERLOT ELIXR Case Study: “Teaching Computer Science.” <http://elixr.merlot.org/case-stories/understanding--meeting-students-needs/universal-design-for-learning-udl/teaching-computer-science2> 2010

#### FUNDING

##### External Funding

- *Towards Automatic Task Classification*, PI 2015–2016  
Award amount: \$131,561  
US Department of Energy, subcontract with Oak Ridge National Laboratory
- *Travel Support for the 2015 IEEE International Symposium on Performance Analysis of Systems and Software*, PI 2015  
Award amount: \$10,000 in student travel support  
National Science Foundation, Division of Computing and Communication Foundations
- *Support for Power Efficiency Task*, PI 2013–2014  
Award amount: \$233,496.19  
US Department of Energy, subcontract with Oak Ridge National Laboratory
- *Classifying Application-Level Power Consumption Patterns*, PI 2013–2014  
Award amount: \$7,000 in student stipends and travel support  
Computing Research Association, Collaborative Research Experiences for Undergraduates program
- *S3: Stepping up STEM at Sonoma State University*, senior personnel 2011–2016  
Award amount: \$791,636  
National Science Foundation, Division of Undergraduate Education
- *Student Support for Power Efficiency Task*, senior personnel 2012  
Award amount: \$26,433  
US Department of Energy, subcontract with Oak Ridge National Laboratory
- *Travel Support for the 2012 IEEE International Symposium on Performance Analysis of Systems and Software*, PI 2012  
Award amount: \$5,000 in student travel support  
National Science Foundation, Division of Computing and Communication Foundations
- *Modeling the Power Consumption of Computer Systems with Graphics Processing Units (GPUs)*, PI 2010–2011  
Award amount: \$16,800 in student stipends and travel support  
Computing Research Association, Collaborative Research Experiences for Undergraduates program

##### Competitive Internal Funding

- *Source Code Stylometry: The Substance of Coding Style* 2014–15

- Award amount: \$4,403 in student assistant funding  
SSU RSCAP Mini-Grant program
- *Classifying Application-Level Power Consumption Patterns*, faculty advisor 2013  
Award amount: \$375 in equipment funding  
SSU Undergraduate Research Grant awarded to Rachelle Thysell
- *Characterizing Power Consumption of Supercomputing Applications*, PI 2012–2013  
Award amount: \$4,102 in student assistant and equipment funding  
SSU RSCAP Mini-Grant program
- *Power Signature Analysis of Supercomputing Applications*, faculty advisor 2012  
Award amount: \$600 in equipment funding  
SSU Undergraduate Research Grant awarded to Matthew Hardwick
- *Power Signature Analysis*, PI 2012  
Award amount: \$5,000 in student assistant and faculty stipends  
Subaward from the S3 NSF STEP grant
- *Contextualizing the Literature of Introductory Programming Education*, PI 2010  
Award amount: \$1,000 in student assistant funding  
SSU Instructionally Related Activities Student Assistant program
- *Modeling the Power Consumption of Graphics Processors*, faculty advisor 2010  
Award amount: \$650 in equipment funding  
SSU Undergraduate Research Grant awarded to Benjamin Morrison

#### Travel Grants

- Travel to Denice Denton Emerging Leaders Workshop (Madison, WI) 2016  
Funding sources: Anita Borg Institute; Computing Research Association
- Travel to Mid-Career Mentoring Workshop (Portland, OR) 2015  
Funding source: Computing Research Association, Committee on the Status of Women in Computing Research
- Sonoma State School of Science and Technology Professional Development Grants
  - Supercomputing (Austin, TX) 2015
  - Intl. Conf. on Parallel Processing 2013–2014
  - IEEE Intl. Symp. on Performance Analysis of Systems and Software 2011–2013
  - ACM SIGCSE Tech. Symp. on Computer Science Education 2011–2013
  - Intl. Symp. on Computer Architecture (Austin, TX) 2009
  - Workshop on Power-Aware Computing and Systems (San Diego, CA) 2008
- Travel to the Programming Languages, Operating Systems, and Architecture Mentoring Workshop (Washington, D.C.) 2009  
Funding source: Computing Research Association, Committee on the Status of Women in Computing Research / Coalition to Diversify Computing

REVIEWING  
AND EDITING

#### Program Committee Membership

- Workshop on High-Performance, Power-Aware Computing (HPPAC) 2012–2016
- ACM/SPEC Intl. Conf. on Performance Engineering (ICPE) 2016
- IEEE/ACM Intl. Symp. on Cluster, Cloud, and Grid Computing (CCGrid) 2016
- Intl. Workshop on Power-aware Algorithms, Systems, and Architectures (PASA) 2016, 2014
- Intl. Conf. for High-Performance Computing, Networking, Storage, and Analysis (SC) 2014
- Intl. Conf. on Parallel Processing (ICPP) 2013
- ACM Intl. Systems and Storage Conference (SYSTOR) 2013
- Workshop on Power Grid-Friendly Computing (PGFC) 2012
- Intl. Conf. on Supercomputing (ICS) 2011
- IEEE Intl. Symp. on Performance Analysis of Systems and Software (ISPASS) 2011
- ACM SIGCOMM Intl. Conf. on Energy-Efficient Computing and Networking (e-Energy) 2010



- Workshop on Power-Aware Computing and Systems (HotPower) 2009
- Workshop on Modeling, Benchmarking, and Simulation (MoBS) 2009

### Editorial Board Membership

*Potentials*, the Institute of Electrical and Electronics Engineers (IEEE) student magazine:

- Contributing Editor 2013
- Associate Editor 2009–2012 and 2004–2006
- Editor-in-Chief 2007–2008
- Student Editor 2002–2004

### Reviewing

- ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS) 2016
- ACM SIGCSE Technical Symposium on Computer Science Education 2010–2016
- ACM Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE) 2013–2016, 2010–2011
- IEEE Transactions on Cloud Computing 2015
- International Conference on Energy-Aware High Performance Computing (EnAHPC) 2015
- *IEEE Potentials* 2014–2015
- ACM Student Research Competition Grand Finals 2015
- International Symposium on Microarchitecture (MICRO) 2014, 2006
- IEEE International Symposium on High-Performance Computer Architecture (HPCA) 2014
- *IEEE Micro* 2011–2012
- *IEEE Transactions on Computers* 2010–2012
- International Conference on High-Performance and Embedded Architecture and Compilation (HiPEAC) 2011
- *IEEE Transactions on VLSI* 2009
- *IEEE Transactions on Services Computing* 2008
- International Symposium on Computer Architecture (ISCA) 2008
- International Conference on Parallel Architecture and Compilation Techniques (PACT) 2006

### INDUSTRY EXPERIENCE

- Consulting Researcher, Oak Ridge National Laboratory (Oak Ridge, TN) 2012  
*Collaborators:* Dr. Chung-Hsing Hsu, Dr. Stephen W. Poole  
 Conducted research on power analysis and management in high-performance computing environments.
- Consulting Researcher, Microsoft Research-Silicon Valley (Mountain View, CA) 2008–2012  
*Collaborators:* Dr. John D. Davis, Dr. Moises Goldszmidt  
 Conducted research on power modeling, power management, and energy-efficient computer design for large-scale datacenter environments.
- Intern, Hewlett-Packard Labs (Palo Alto, CA) 2005–2006  
*Mentor:* Dr. Parthasarathy Ranganathan  
 Conducted Ph.D. dissertation research on computer energy-efficiency metrics and power consumption models.
- Intern, Cray (Chippewa Falls, WI) 2003  
*Mentor:* Dr. Steve Scott  
 Developed a theoretical model and lightweight simulator for a clustered vector supercomputer microarchitecture.

	<ul style="list-style-type: none"> <li>• Intern, Compaq Computer Corp. (Houston, TX) 2001 <i>Mentor: David Joy</i> Benchmarked, debugged, and tested firmware for Integrated Lights-Out (iLO) server management product.</li> </ul>	
PATENT	<i>US Patent 8,904,209: Davis, J.D., Goldszmidt, M., and Rivoire, S.M.,</i> “Estimating and Managing Power Consumption of Computing Devices Using Power Models”	2014
PROFESSIONAL SERVICE	<ul style="list-style-type: none"> <li>• Student travel grant chair, International Symposium on Performance Analysis of Systems and Software (ISPASS) 2015, 2013, 2012, 2010</li> <li>• Registration Chair, International Symposium on Performance Analysis of Systems and Software (ISPASS) 2014</li> <li>• Member, IEEE Publication Products and Services Committee 2013–2014</li> <li>• Member, IEEE Publication Conduct Committee 2007–2010</li> <li>• Tester, IEEEEXTreme worldwide student programming contest 2009</li> <li>• Member, IEEE Publication Services and Products Board 2007–2008</li> <li>• Member, Conference No-show Policy ad-hoc subcommittee of IEEE Publication Services and Products Board 2008</li> <li>• Member, IEEE Student Activities Committee 2007–2008, 2002–2004</li> <li>• Newsletter editor, worldwide IEEE Women in Engineering 2006–2008</li> <li>• Newsletter editor, worldwide IEEE Graduates of the Last Decade (GOLD) 2006</li> </ul>	
UNIVERSITY SERVICE	<p><b>Sonoma State University: Committee Membership</b></p> <ul style="list-style-type: none"> <li>• Academic Planning, Assessment and Resources Committee (APARC) 2016–present</li> <li>• Academic Senate 2013–2016 Temporary at-large replacement to Executive Committee Nov.–Dec. 2015</li> <li>• Search committee, Deputy CIO for Workstation Support and IT Help Desk 2015</li> <li>• Graduation Initiative Group 2012–2015</li> <li>• University Professional Development Subcommittee 2012–2015</li> <li>• Web Advisory Committee 2012–2014</li> <li>• University Scholarship Subcommittee 2010–2013</li> <li>• Dispute Resolution Board Spring 2009</li> </ul> <p><b>Sonoma State University: School and Departmental Service</b></p> <ul style="list-style-type: none"> <li>• Program Coordinator, School of Science and Technology (SST) Student High School Internship Program (SHIP) 2012–present</li> <li>• Faculty advisor, Women in Computer Science student organization 2011–present</li> <li>• Reappointment, Tenure, and Promotion (RTP) committees <ul style="list-style-type: none"> <li>• Computer Science Department 2015–2016</li> <li>• Geology Department 2015–2016</li> <li>• Library school committee 2015–2016</li> </ul> </li> <li>• Search committee member, CS tenure-track faculty positions 2013, 2014, 2015</li> <li>• SST Professional Development Committee <ul style="list-style-type: none"> <li>• Chair 2013</li> <li>• Computer Science department representative 2010–2016</li> </ul> </li> <li>• Faculty mentor, SST Summer High School Internship Program 2011–2013, 2009</li> <li>• Search committee member, CS/Geology Academic Support Coordinator 2012</li> <li>• Search committee member, ES Visiting Assistant Professor 2012</li> <li>• Volunteer for CS department at Seawolf Day 2013, 2012, 2010</li> <li>• Volunteer for CS department at Latino Family Summit 2012, 2010</li> <li>• Volunteer at MESA Day 2011</li> </ul>	

### **Sonoma State University: Other Service**

- One of 6 faculty university-wide to present at Convocation Faculty Showcase 2015
- Name reader at Commencement 2011–2016
- Interviewer, University Study Abroad program 2013, 2010
- Judge, School of Education’s Jack London Award 2010
- Reviewer, Undergraduate Research Grant applications 2008

### **Stanford University**

- Computer Systems Laboratory Student Ambassador 2004–2007
- “Big Sister” to three first-year graduate students through Stanford Women in Electrical Engineering 2004–2007
- Mentor to eight first-year graduate students through Stanford Electrical Engineering admissions office 2006–2007
- Member, Judicial Panel pool 2005–2006
- Webmaster, Assoc. Students of Stanford University Speakers Bureau 2003–2006

### COMMUNITY SERVICE

#### **Expanding Your Horizons–Sonoma County**

Expanding Your Horizons (EYH) is a 1-day conference introducing middle school girls to science and technology.

- Web chair 2014–present
- Workshop leader 2010–2013, 2015–2016
- Organizing Committee member in charge of printed materials 2013–2014
- Facilities Committee member 2014, 2012

#### **Other Outreach Activities**

- Advisory Board of Santa Rosa Junior College CS 2008, 2015
- Volunteer scientist, MESA Schools Program “Dinner with a Scientist” (Santa Rosa, CA) 2014
- Judge, Sonoma County Office of Education Science Fair (Rohnert Park, CA) 2013
- Panelist, Professional Women’s Evening at Tech Trek math and science camp for middle school girls (Rohnert Park, CA) 2012
- Senior project mentor and judge, Novato High School (Novato, CA) 2012
- Faculty advisor, Novato High School MOUSE Squad, an organization that teaches IT support skills (Novato, CA) 2010–2011
- Workshop leader, Adelante program for 7th–12th grade students visiting Sonoma State University (Rohnert Park, CA) 2011
- Volunteer, Dare 2B Digital workshop for middle and high school girls (Los Altos Hills, CA) 2010
- Volunteer, San Francisco Support for Families of Children with Disabilities Parent-Professional Workshop and Halloween party (San Francisco, CA) 2010

### AWARDS

- President’s Award for Excellence in Scholarship (awarded to 2 faculty campuswide) 2015
- Nominated for Sonoma State University Excellence in Teaching Award 2012
- MOUSE Squad of Northern California Volunteer of the Year 2011
- Stanford Graduate Fellowship 2001–2005
- National Science Foundation Graduate Fellowship 2001–2004
- UT-Austin Electrical and Computer Engineering Department “Outstanding Scholar-Leader” (awarded to 1 graduating student) 2001
- UT-Austin Society of Women Engineers “Outstanding Student” (awarded to 1 graduating student) 2001