Bryan Mills

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Education

Ph.D., Computer Science — ***Expected May 2014***
University of Pittsburgh, Pittsburgh, Pennsylvania USA

M.S., Computer Science — **December 2007**
University of Pittsburgh, Pittsburgh, Pennsylvania USA

B.S., Computer Science and Mathematics — **May 2001**
Bethany College, Bethany, West Virginia, USA

Publications (Peer Reviewed)

- *Bryan Mills*, Taieb Znati, Rami Melhem, Ryan E. Grant and Kurt B. Ferreira. Energy Consumption of Resilience Mechanisms in Large Scale Systems. Parallel, Distributed and Network-Based Processing (PDP), 22st Euromicro International Conference. February 12-14, 2014.
- *Bryan Mills*, Taieb Znati and Rami Melhem. Shadow Computing: An Energy-Aware Fault Tolerant Computing Model. In Proceedings of the International Conference on Computing, Networking and Communications (ICNC). February 3-6, 2014.
- *Bryan Mills*, Ryan E. Grant, Kurt B. Ferreira and Rolf Riesen. Evaluating Energy Savings for Checkpoint/Restart. First International Workshop on Energy Efficient Supercomputing (E2SC) in conjunction with SC13: The International Conference for High Performance Computing, Networking, Storage and Analysis. November 17, 2013.
- *Bryan Mills*, Taieb Znati, Increasing DHT Data Security by Scattering Data, 17th International Conference on Computer Communication and Networks (ICCCN), August 3-7, 2008.
- *Bryan Mills*, Taieb Znati, SCAR - Scattering Concealing and Recovering data within a DHT, Proc. of the 41th Annual Simulation Symposium (ANSS), April 13-16, 2008.
- Subrata Acharya, *Bryan Mills*, Mehmud Abliz, Taieb Znati, Jia Wang, Zihui Ge, Albert Greenberg, OPTWALL: A Traffic-Aware Hierarchical Firewall Optimization, 14th Network and Distributed Systems Symposium (NDSS), 2007.

Teaching Experience

Adjunct Professor — **January 2009 – December 2012**
Bethany College, Bethany, West Virginia
Taught junior- and senior-level computer science courses. Courses taught "Networking and Distributed Systems" and "Artificial Intelligence". Developed course and created all course materials including projects, assignments and tests.

Teaching Assistant — **January 2007 – May 2007**
University of Pittsburgh, Pittsburgh, Pennsylvania
Taught introduction to computer science for non-majors using Visual Basic. Created all course materials based upon required teaching topics.

Professional Experience

Graduate Student Researcher **May 2013 – September 2013**
Sandia National Labs, Albuquerque, New Mexico
Researched and implemented energy-aware resilience protocols in Sandia's High Performance Computing environments. Modified the Message Passing Interface (MPI) library to implement new protocols and executed a variety of experiments using Sandia's HPC testbed clusters. This work led directly to the publication of 1 conference paper (PDP 2014) and 1 workshop paper (SC 2013).

Senior Software Consultant **March 2012 – Present**
Rhiza Labs, Pittsburgh, Pennsylvania
Working with a small team of software engineers to transition a prototype into a production ready software deployment called Rhiza Analytics. Rhiza Analytics is a powerful and elegant analytics research tool that fuses your company's data with public and syndicated data to give you a 360 view of a situation. Involved in all aspects of the software engineering process from architecture to deployment.

Chief Technology Officer **January 2006 – March 2012**
Wellspring Worldwide, Chicago, Illinois (Moved from Pittsburgh, Pennsylvania)
Led all technical decisions while growing a company that was named the second fastest growing company in Western Pennsylvania by the Pittsburgh Business Times in 2010. Involved in all aspects of building a company focused on developing web-based research management systems. Worked with leading research institutions to create what is now regarded as the premier software for managing technology transfer operations. Built an engineering group consisting of 15 full-time engineers, 5 different product lines and over 150 clients while self-funding all growth. Personally involved in every stage of the software development lifecycle from early stage idea through to product maintenance. This enabled me to realize my vision of producing easy to use software that combines complex data from a variety of sources making our users more productive.

Senior Software Engineer **August 2004 - January 2006**
TimeSys, Pittsburgh, Pennsylvania
Implemented a remotely accessible board farm designed for testing and developing new board support operating systems focused on embedded systems. This system allowed developers to remotely boot the boards, install software (kernels and rfs), ssh and telnet to the physical board, view serial console output, and run scripted tests on the board.

Co-founder and Chief Technology Officer **August 2003 - August 2004**
Cobind, Pittsburgh, Pennsylvania
Designed and implemented DiY Linux Tools to simplify the Linux distribution lifecycle. System allows the user to design, build, and maintain custom Linux distributions. Built using open source technology with a python-driven distributed build system and a PHP web interface. Experience designing distributed systems, automating OS build processes, and implementing package management systems. Interest in this technology led TimeSys to engage in a license to the DiY Linux Tools.

Software Engineer **July 2001 - August 2003**

Management Science Associates, Pittsburgh, Pennsylvania

Worked in the Medical Division on a project to define and build the data collection systems for the Immune Tolerance Network (ITN). Intimately involved in the planning and construction of the ITN's data management infrastructure that included research data collection from a variety of clinics throughout the United States. Additionally, built data collection tools for the Pittsburgh Tissue Engineering Initiative (PTEI) which integrated with other tools such as CelNet.org

Software Engineer **May 2000 - July 2001**

MetalSite, Pittsburgh, Pennsylvania

Primary engineer for building an Open-Bid Auction, Sealed-Bid Auction, and a Catalog Management System. Led integration team to build SOAP based technology for complete system integration to connect disparate applications to an e-commerce website.