

Judith T. Samson

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Languages C, C++, Java, MATLAB

Scholarships & Grants

- Google Student Veterans of America Scholarship
- Marilyn C. and Raymond E. Davis Scholarship
- Sury Initiative for Global Finance and International Risk Management (SIGFIRM) Research Grant

Experience

6-2012 to Present

PhD Student, Computer Engineering, University of California, Santa Cruz

Graduate Research Assistant, Center for Information Technology Research in the Interest of Society (CITRIS)

- Research new methods to find shortest paths with multiple criteria; where known shortest path algorithms fail. Using the properties of semirings and other algebraic structures, create efficient algorithms that will find and store multiple partially ordered paths in a lattice.
- Under grant from SIGFIRM, partner with Economics Department to model catastrophic bank avalanches in the financial system by tracing the path of systemic risk transferral among banks.
- Research new methods to apply machine learning algorithms to computer networks.

3-2008 to 6-2012

Undergraduate Research Assistant, CITRIS, University of California, Santa Cruz

- Developed concept of using lattices to contain multiple incomparable paths through a computer network in support of differing Quality of Service requirements
- Developed concept of a failover mechanism for internet recovery in the event of a catastrophic loss of Internet services over a wide metropolitan area.

06-2005 to 12-2007

Head of Security Intelligence, Head of Operational Risk Analytics, Deutsche Bank

Conceived and established the bank's first global security intelligence group to assess, analyze and report information crucial to corporate security and business continuity. Led 24/7 operation with staff spanning Europe, North America and Asia.

- Led global, multi-team project to develop intranet website to provide up-to-the-minute information on world events, security issues and political trends for the 75 countries in which Deutsche Bank has a presence.
- Developed model to interpret and project quarterly and annual operational losses. Led team to test and develop outlier boundaries

for typical versus extreme losses to improve accuracy of the bank's economic capital model. Researched and developed model to track clusters of probability indicators for specific operational loss events.

07-2003 to 05-2005

Knowledge Management Director, U.S. Navy Headquarters Europe/Sixth Fleet

Established and directed the Knowledge Management program at U.S. Navy headquarters for Europe and Africa.

- Within two years progressed from the command's sole web developer and writer to head team of fifteen web developers, system administrators and knowledge management personnel in four countries.
- Implemented first Web-centric command and control system in the European theater, enabling a 1000-person staff to collaborate as one team across Europe, Africa and at sea. Methodology was adopted as a model for U.S. combatant commands worldwide.

01-2001 to 07-2003

Counterterrorism Plans Officer, U.S. Navy Headquarters Europe

Awarded the Navy Commendation Medal for creating the wartime operational information management program for Operations Enduring Freedom and Iraqi Freedom. Conducted mission analysis and developed contingency plans and courses of action in a severely time-constrained and high-pressure environment.

07-1998 to 08-1999

Senior Technical Writer, The Axean Group/ Kaiser Permanente

Documented and tested installation and configuration of IBM R/6000 H50 and S70 enterprise servers for global medical record database system. Designed client-server architecture diagrams, wrote project and architectural specifications for engineering teams.

04-1997 to 07-1998

Senior Technical Writer, Pacific Gas & Electric

Documented architecture of server systems. Developed process flows of data and operations, wrote procedures to improve data access and analysis. Wrote end-user documentation for data collection and systems.

08-1996 to 04-1997

Financial Consultant, Merrill Lynch

09-1992 to 05-1996

Surface Warfare Officer, Lieutenant, U.S. Navy, USS MOUNT HOOD AE 29

Supervised two divisions of 67 machinists and boiler technicians. Directed operation and maintenance of steam propulsion. Awarded campaign medals for Operations Desert Storm in the Persian Gulf and Restore Hope in Somalia.

Publications

- *Sams Teach Yourself GNOME in 24 Hours*, Sams, May 2000.
- *Sams Teach Yourself Red Hat Linux in 24 Hours*, Sams, Nov 2000.

Education

- Bachelor of Arts, Mathematics, University of California, Santa Cruz
- Bachelor of Arts, Russian, Northwestern University