

EDUCATION

University of North Carolina at Chapel Hill

Master of Science in Computer Science, May 2007

Master's Thesis: "Fostering Communication and Collaboration in Online Communities"

Bachelor of Science in Computer Science with Honors, May 2003

EXPERIENCE

IBM Research

Almaden Research Center, San Jose, California

Research Software Engineer (December 2006 – present)

- Human computer interaction researcher in the USER (User Systems and Experiences Research) group focused on building and studying applications in the social and collaborative computing space.
- As part of an exploratory research project in healthcare data visualization, I designed and implemented an innovative user-interface, data visualization components and a scalable front-end infrastructure for the nation's largest healthcare provider. This system was published at the 2010 MEDINFO Conference.
- Led the front-end development team through a complete redesign and rearchitecture of a data mining and visualization application used for corporate brand reputation analysis. Team was composed of two developers on-site and two at IBM's China Research Lab. I oversaw (and developed) new features, a more functional user interface, and transitioned application to a service oriented architecture. The methodology and use of novel visualization techniques employed in the redesign were published in the 2009 International Conference on Human-Computer Interaction (HCI).
- Studied blogging within large corporations by creating a group blog, tying the blog to internal IBM social networks and performing a user study on the degree community cohesiveness felt by blog readers and posters. I presented this work at the CSCW 2008 Workshop on Social Networking within Organizations.
- Designed and implemented an email search and discovery tool using new visualization techniques to surface relationships and themes in unstructured data. I presented this work at the CHI 2008 Workshop on Social Data Analysis.

IBM Software Group

Silicon Valley Lab, San Jose, California

Software Engineering Temporary Assignment (November 2007 – January 2008)

- Accepted a 3 month temporary assignment with IBM's Enterprise Content Management and Discovery group to implement visualization techniques I developed while in Research into an email search and discovery product.
- My work was later productized in the IBM eDiscovery Analyzer Software Solution.

IBM Systems & Technology Group

San Jose, California

Extreme Blue Internship (May 2006 – August 2006)

- Streamlined IBM's premier data storage device (DS8000) by reducing software and hardware complexity and allowing IBM to ship storage units preconfigured to customers.
- Embedded existing enterprise, C++ storage management software directly onto the storage device, refactoring portions of the code base to remove network hops and communicate directly with OS kernel.

University of North Carolina at Chapel Hill Computer Science Department

Chapel Hill, North Carolina

Chemoinformatics Research Assistant (December 2005 – May 2007)

- Lead developer of a highly scalable, web-based application to facilitate sharing of computer-aided drug design tools and data over the web by medicinal chemists. The system is used by the National Institute of Health (NIH) and several major pharmaceutical companies.
- Collaborated closely with the principal investigator of the NIH grant and chair of the medicinal chemistry department.

CapTech Ventures, Inc.

Richmond, Virginia

Technical Consultant (June 2003 – July 2005)

- Managed all builds and production deployments of an enterprise-size application at the Supreme Court of Virginia. The application was used by all magistrates across Virginia to store information about offenders after they commit a crime. Worked on a team contributing to the development of all aspects of the application, from user interface design to database schema design.

- Enhanced functionality of a disease management application used by hundreds of nurses at the Health Management Corporation (HMC) across the United States. Ensured the system was highly reliable, available, and manage multiple, concurrent transactions with large volumes of data.

Sandia National Laboratories

Albuquerque, New Mexico

Software Development Intern: Summer 2002 (May 2002 – August 2002)

- Worked on a team to redesign an enterprise security desktop application that was previously process oriented to be object oriented.

Software Development Intern: Summer 2001 (May 2001– August 2001)

- Wrote a novel software application that formatted, filtered and sorted critical security data files.

PROFESSIONAL ACTIVITIES

- O'Reilly Media 2010 Foo Camp Attendee
- Board Member on the Computer History Museum's Next Generation Advisory Board
- Primary organizer of SIGCHI 2010 Workshop "Microblogging: What and How Can We Learn From It?" held at the *Proceeding of the Twenty-Seventh Annual SIGCHI Conference on Human Factors in Computing*. Duties included: writing detailed Call for Participation (available: <http://www.cs.unc.edu/~julia/CHI2010-Microblogging-Workshop-Final.pdf>), selecting 20 papers out of 35 submitted (very large response rate for a workshop), planning all-day event with 34 attendees discussing issues and methodologies around microblogging.

INVITED TALKS

- Headlining speaker at California State University – Fullerton, CommWeek 2010. Title: "**My manager is my friend on Facebook: How social media broke down the boundaries of work and play**", May 2010.
- Panelist at University of Southern California panel "**Social Media: Platform or Provocation for Innovation?**", November 2009.
- Colloquium speaker at IBM Cambridge Center for Social Software, October 2009.
- Colloquium speaker at Sonoma State University, "**Social Web: How Social Software is changing the Enterprise**", October 2008.

MEDIA INVOLVEMENT

- Featured in the "IBM Smarter Healthcare" commercial that was aired internationally beginning 3/2009
- Focus of a second IBM commercial (based on my work) aired nationally in 3/2010

PUBLICATIONS

- Amir, A., Beymer, D., **Grace, J.**, Greenspan, H., Gruhl, D., Hobbs, A., Pohl, K., Syeda-Mahmood, T., Terdiman, J., Wang, F. AALIM: A Cardiac Clinical Decision Support System Powered By Advanced Multi-modal Analytics. *Proceeding of the Thirteenth World Congress on Medical and Health Informatics* (Cape Town, South Africa, September 12 – 14, 2010). MEDINFO 2010.
- **Grace, J.**, and Robson, C. Enterprise Social Networking: History, Current Practices, and Research Challenges. *In The Grace Hopper Computing Conference* (Tucson, AZ, USA, September 30 – October 3, 2009).
- Behal, A., **Grace, J.**, Kato, L. and Chen, Y. 2008. COBRA - A Visualization Solution to Monitor and Analyze Consumer Generated Medias. *In Proceedings of the Thirteenth Annual International Conference on Human-Computer Interaction* (July 19 – 24, 2009). HCI 2009.
- Pieper, J., **Grace, J.** and Dill, S. Team Analytics: Understanding Teams in the Global Workplace. *Proceeding of the Twenty-Seventh Annual SIGCHI Conference on Human Factors in Computing Systems* (Boston, MA April 04 - 09, 2009). CHI 2009.
- **Grace, J.**, Robson, C., and Pierce, J., 2008. Community Building within Enterprise Blogs, An iPhone Blog Story. *In Proceedings of the ACM 2008 Conference on Computer Supported Cooperative Work* (San Diego, CA, USA, November 08 - 12, 2008). CSCW '08 - Workshop on Social Networking in Organizations
- Robson, C., and **Grace, J.**, 2008. Criteria for a Successful Sale: How to match Sales leads with Delivery Experts. *In Proceedings of the 2008 Production and Operations Management Society Conference* (May 9 - May 12, 2008). POMS 2008.
- Alba, A., Bhagwan, V., **Grace, J.**, Gruhl, D., Haas, K., Nagarajan, M., Pieper, J., Robson, C., and Sahoo, N. 2008. Applications of Voting Theory to Information Mashups. *In Proceedings of the 2008 IEEE international Conference on Semantic Computing - Volume 00* (August 04 - 07, 2008).
- **Grace, J.**, Gruhl, D., Haas, K. and Robson, C. Encouraging collaboration for unstructured data analysis. *In Proceeding of the Twenty-Sixth Annual SIGCHI Conference on Human Factors in Computing Systems Social Data Analysis Workshop* (Florence, Italy, April 05 - 10, 2008). CHI 2008.