Jonathan Koren

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EDUCATION

PhD Expected 2011 **Computer Science** **University of California, Santa Cruz**
Advisor: Dr. Yi Zhang

Research Concentration: Faceted Search, Personalization/Recommendation, Adaptive Interfaces, Machine Learning

MS 2005 **Computer Science** **Southern Illinois University, Carbondale**
Advisor: Dr. Norman F. Carver III

Thesis: Minimizing Communication Cost in an N-Agent Distributed Bayesian Network by Using a Decentralized MDP

BS 1998 **Computer Science** **Southern Illinois University, Carbondale**

PUBLICATIONS

Conference Proceedings

J. Koren, Y. Zhang, and X. Liu. Personalized Faceted Search. Proceedings of the 17th International Conference on the World Wide Web (WWW '08). Beijing, China

J. Koren, Y. Zhang, S. Ames, A. Leung, C. Maltzahn, and E. Miller. Searching and Navigating Petabyte Scale File Systems Based on Facets. Proceedings of the 2nd ACM Petascale Data Storage Workshop (PDSW '07). International Conference for High Performance Computing, Networking, Storage, and Analysis (SC '07). Reno, NV, USA.

Y. Zhang and **J. Koren**. Efficient Bayesian Hierarchical User Modeling for Recommendation Systems. Proceedings of the 30th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '07). Amsterdam, The Netherlands.

Book Chapters

M. Stefaner, S. Ferré, S Perugini, **J. Koren**, Y. Zhang "User Interface Design," in Dynamic Taxonomies and Faceted Search G. Maria and Y. Tzitzikas (Eds.). Springer 2009.

RESEARCH EXPERIENCE

2006 – Present **Graduate Student Researcher** **University of California, Santa Cruz**
Advisor: Dr. Yi Zhang

Researching automatic generation of personalized adaptive faceted search interfaces.

Researching petabyte-scale distributed metadata storage systems, with emphasis on enterprise search, including ranking, among heterogeneous documents, context-aware, personalized, and collaborative filtering.

2009 Intern Lawrence Livermore National Lab; Livermore, CA
Conducted research on ontology automatic construction from unstructured text collections. Ontologies were then used to build faceted search interfaces.

2008 Intern Microsoft Research; Redmond, WA
Conducted research into static ranking of web pages based on language models of URLs actually browsed to.

2006 Intern Yahoo! Search; Santa Clara, CA
Conducted research on determining intent from query logs. This research was used to diversify search results.

2003 – 2005 Research Assistant Southern Illinois University, Carbondale
Advisor: Dr. Norman F. Carver III

Conducted research on multiagent distributed sensor interpretation systems using distributed Bayesian networks and decentralized Markov decision processes. Research focused on problem complexity and domain monotonicity.

INDUSTRIAL EXPERIENCE

2005 – 2006 Developer SchoolCenter; Carbondale, IL
Used PHP and SQL in a Linux-Apache (LAMP) environment, to develop a market leading K-12 content management system.

1999 – 2001 Sr. Software Engineer Motorola; Arlington Heights, IL
Designed and implemented support for EDGE (a.k.a. EGPRS) hardware in the Configuration Management and Network Management System processes. This involved porting the process from proprietary operating system on a 68x000 based architecture to VxWorks on a PowerPC based architecture.

Developed and maintained real-time (RTOS) software for the Man-Machine Interface and the Configuration Management processes for the GSM Base Station Subsystem using C and C++.

INVITED TALKS

June 2009 Fuji Xerox Palo Alto Lab Palo Alto, CA
Personalizing Faceted Search

April 2009 Lawrence Livermore National Lab Livermore, CA
Faceted Metadata Search for File Systems

PROFESSIONAL ACTIVITY

Local Arrangements Committee 17th International Conference on Information and Knowledge Management (CIKM 2008)

Program Committee Second International Workshop on Dynamic Taxonomies and Faceted Search (FIND ’08).

Reviewer 31st Annual International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR ’08).

TECHNICAL SKILLS

Programming languages: C/C++, Perl, Python, Java, Lisp

Web Technologies: HTML, PHP, XML, XSL, CSS, CGI, Javascript, SQL

Application Environments: GNOME/Gtk+, wxWindows, and Java (Swing) applications

Operating Systems: Unix (Linux and Solaris) and VxWorks

Experience: distributed systems, client/server and multithreaded applications, object-oriented programming (OOP), embedded systems