

**RESEARCH INTERESTS**

**Immediate Goals**

Seeking post-doctoral research opportunities in a corporate research, government, or academic environment working in the following areas: personalization, information filtering, recommender systems, human-computer interaction, human-information interaction, computer-supported cooperative work, usability, digital libraries, data mining, trust, and web application design and engineering.

**Research Areas**

Personalization, information filtering, recommender systems, user modeling, human-computer interaction, human-information interaction, computer-supported cooperative work, data mining, machine learning, digital libraries, information seeking behavior, applications of Internet technology.

**Career Objectives**

I hope to tackle challenging research questions in the areas of information filtering, human-computer interaction, and computer-supported cooperative work, and make an impact with my results in a stimulating environment.

**EDUCATION**

**Ph.D. in Computer and Information Sciences ..... (Fall 1998 – June 2006)**

*Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

Thesis title: “Meeting User Information Needs in Recommender Systems”.

Joseph A. Konstan, advisor.

**M.S. in Computer and Information Sciences ..... (Fall 1998 – March 2003)**

*Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

Project title: “MovieLens Explored: The Evolution of User Interfaces for a Recommender System”

**B.A. with Distinction in Computer Science ..... (Fall 1994 – Spring 1998)**

*Carleton College, Northfield, MN. Graduated magna cum laude. GPA: 3.6/4.0*

**HONORS AND AWARDS**

**Computer Science Research Excellence Fellowship ..... (Spring 2006)**

*Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Best Poster Award ..... (March 2006)**

From the CSGSA Poster Conference, for “Making Recommendations Better: An Analytic Model for Human- Recommender Interaction”, *Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Excellence in Research Award..... (March 2004)**

For “Interfaces for Eliciting New User Preferences in Recommender Systems”, *Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Best Student Paper Award..... (June 2003)**

For “Interfaces for Eliciting New User Preferences in Recommender Systems”, *9<sup>th</sup> International Conference on User Modeling (UM 2003).*

**NSF Graduate Research Trainee..... (Fall 1999 – Spring 2002)**

*GroupLens Research, Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Pass with Honors on Doctoral Written Preliminary Exam ..... (March 2000)**

*Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Outstanding TA Award ..... (Spring 1999)**

For CSCI 2011: Discrete Mathematics, *Department. of Computer Science and Engineering, University of Minnesota—Twin Cities.*

**Graduated Magna Cum Laude with Distinction in Major..... (June 1998)**

*Carleton College, Northfield, MN.*

**Inducted into Sigma Xi, the Scientific Research Society ..... (Winter 1998)**

*Carleton College, Northfield, MN.*

**INVITED TALKS**

Microsoft LiveLabs and Microsoft Research, Redmond, WA. “Upping the Ante: Rethinking Recommender Systems from an End User’s Perspective”, June 2006.

Telematica Institute, Enschede, The Netherlands. “User Interface Issues in Recommender Systems”, September 2003.

**REFEREED FULL PAPERS**

Sean M. McNee, Nishikant Kapoor, and Joseph A. Konstan. “Don’t Look Stupid: Avoiding Pitfalls when Recommending Research Papers”. In *Proceedings of the 2006 ACM Conference on Computer Supported Cooperative Work (CSCW 2006)*, Banff, Canada, November 2006. [to appear] (acceptance rate unknown)

Cai-Nicolas Ziegler, Sean M. McNee, Joseph A. Konstan, and Georg Larson. “Improving Recommendation Lists Through Topic Diversification”. In *Proceedings of the Fourteenth International World Wide Web Conference (WWW 2005)*, Chiba, Japan, May 2005, pp. 22-32. (acceptance rate: 14%)

Roberto Torres, Sean M. McNee, Mara Abel, Joseph A. Konstan, and John Riedl. “Enhancing Digital Libraries with TechLens+”. In *Proceedings of the Fourth ACM/IEEE Joint Conference on Digital Libraries (JCDL 2004)*, Tucson AZ, June 2004, pp. 228-237. (acceptance rate: 30%)

Sean M. McNee, Shyong K. Lam, Cathy Guetzlaff, Joseph A. Konstan, and John Riedl. “Confidence Metrics and Displays in Recommender Systems.” In *Proceedings of INTERACT '03 IFIP TC13 International Conference on Human-Computer Interaction*, Zurich, Switzerland, September 2003, pp. 176-183. (acceptance rate: 34%)

Sean M. McNee, Shyong K. Lam, Joseph A. Konstan, and John Riedl. “Interfaces for Eliciting New User Preferences in Recommender Systems.” In *Proceedings of the 9<sup>th</sup> International Conference on User Modeling (UM 2003)*, Springer LNAI 2702, Johnston PA, June 2003, pp. 178-188. (acceptance rate: 25%)

Sean M. McNee, Istvan Albert, Dan Cosley, Prateep Gopalkrishnan, Shyong K. Lam, Al Mamunur Rashid, Joseph A. Konstan, and John Riedl. “On the Recommendation of Citations for Research Papers.” *ACM CHI Letters* 4(3), CSCW 2002, ACM Conference on Computer-Supported Cooperative Work, New Orleans LA, November 2002, pp. 116-125. (acceptance rate: 20%)

Al Mamunur Rashid, Istvan Albert, Dan Cosley, Shyong K. Lam, Sean M. McNee, Joseph A. Konstan, and John Riedl. “Getting to Know You: Learning New User Preferences in Recommender Systems.” In *Proceedings of the 2002 International Conference on Intelligent User Interfaces (IUI 2002)*, San Francisco CA, January 2002, pp. 127-134. (acceptance rate: 30%)

**SHORT PAPERS, DEMONSTRATIONS, AND OTHER PUBLICATIONS**

Joseph A. Konstan, Sean M. McNee, Cai-Nicolas Ziegler, Roberto Torres, Nishikant Kapoor, and John Riedl. “Lessons on Applying Automated Recommender Systems to Information Seeking Tasks”. A Nectar paper in the *Proceedings of AAAI-06: the Twenty-First National Conference on Artificial Intelligence (AAAI-06)*, Boston MA, July 2006. [to appear] (unknown acceptance rate)

Sean M. McNee, John Riedl, and Joseph A. Konstan. “Being Accurate is Not Enough: How Accuracy Metrics have hurt Recommender Systems”. A Work-In-Progress paper in the *Extended Abstracts of the 2006 ACM Conference on Human Factors in Computing Systems (CHI 2006)*, Montreal, Canada, April 2006, pp 1097-1101. (unknown acceptance rate)

Sean M. McNee, John Riedl, and Joseph A. Konstan. "Making Recommendations Better: An Analytic Model for Human-Recommender Interaction". A Work-In-Progress paper in *the Extended Abstracts of the 2006 ACM Conference on Human Factors in Computing Systems (CHI 2006)*, Montreal, Canada, April 2006, pp. 1103-1108. (unknown acceptance rate)

Joseph A. Konstan, Nishikant Kapoor, Sean M. McNee, and John T. Butler. "TechLens: Exploring the Use of Recommenders to Support Users of Digital Libraries". A Project Briefing at *the Coalition for Networked Information Fall 2005 Task Force Meeting*, Phoenix AZ, December 2005. (unknown acceptance rate)

Sean M. McNee, Istvan Albert, Dan Cosley, Prateep Gopalkrishnan, Shyong K. Lam, Al Mamunur Rashid, Joseph A. Konstan, and John Riedl. "TechLens: A Recommender for Computer Science Research Papers." A Demonstration in *Conference Supplement of CSCW 2002, ACM Conference on Computer-Supported Cooperative Work (CSCW 2002)*, New Orleans LA, November 2002, pp. 115-118. (unknown acceptance rate)

## PROFESSIONAL ACTIVITIES

Workshop Co-Chair of *Beyond Personalization 2005: A Workshop on the Next Stage of Recommender Systems Research*, held in conjunction with *the 2005 International Conference on Intelligent User Interfaces (IUI 2005)*, January 2005.

Student Volunteer Co-Chair for *the 2004 ACM Conference on Computer-Supported Cooperative Work (CSCW 2004)*, November 2004.

Reviewer for conferences and journals. (IFIP INTERACT, ACM UIST, ACM CHI, ACM CSCW, ACM SIGIR, ACM TOIS, ACM TOCHI, International Journal on Digital Libraries, International Journal of Electronic Commerce, Journal of Information Science, among others)

Student volunteer for several conferences. (ACM OOPSLA 2000, ACM CHI 2001-2005, ACM IUI 2003, ACM UIST 2003)

Vice-President for Communications, Council of Graduate Students (COGS), University of Minnesota—Twin Cities, 2003-2004.

Student Senator, University Senate of the University of Minnesota, 2003.

Student Representative, Council of Graduate Students (COGS), and the Graduate and Professional Student Assembly (GAPSA), University of Minnesota—Twin Cities, COGS 2001-2004, GAPSA in 2003.

Vice President, Computer Science Graduate Student Association (CSGSA), Department of Computer Science and Engineering, University of Minnesota—Twin Cities, 2001 and 2003.

Member of the ACM, ACM SIGCHI, ACM SIGWEB, and Sigmi Xi.

## WORK AND RESEARCH EXPERIENCE

### Research Assistant ..... (Summer 1999 - Present)

*GroupLens Research, Department of Computer Science and Engineering, University of Minnesota—Twin Cities.* Current projects include: Exploring the use of recommender systems to generate research paper recommendations in a digital library environment, creating new metrics for analyzing CF algorithms, and developing methodologies for tuning recommender systems to meet user information seeking needs.

### Student Consultant representing Microsoft ..... (Fall 2000 – Jan 2002)

*ComFORCE Technical Services and University Relations, Microsoft Research.* Promoted Microsoft technology across University of Minnesota campus. Created and organized the Windows User Group at the University of Minnesota. Coordinating Microsoft technical presentations on campus. Led meetings and technical demonstrations. Empowered professors and students to use Microsoft technologies for research and in the classroom.

**Intern Researcher ..... (Summer 2001)**

*User Interface Research Group, Xerox PARC.* Mentor: Ed. H. Chi. Designed and fully implemented a system using concepts in the Information Foraging Theory. Required background research, application design, extensive programming and performance tuning in Java, group interactions. Gave presentations, talks and created posters concerning the project.

**Intern Software Test Engineer..... (Summer 2000)**

*MS-HTML Globalization Test Team, Microsoft Corporation.* Supervisor: Mark Grinols. Planned, developed, and implemented an XML Integration Test Suite for Internet Explorer. Planned, organized, and lead the creation of an internal-use information repository for IE Testing. Researched several different technologies, wrote plans, specifications, and documentation, organized and lead meetings, and facilitated communication.

**Teaching Assistant ..... (Fall 1998 – Spring 1999)**

*Department of Computer Science and Engineering, University of Minnesota—Twin Cities.*

Classes included:

- CSCI 2011: Discrete Mathematics (Fall 1998 and Spring 1999)
- CSCI 1901: Structure of Computer Programming I (Winter 1999)

Assisted professors in teaching undergraduate classes. Prepared and gave occasional lectures and weekly recitation sections, wrote and graded quizzes, held office hours, and answered students' questions about class.

**NSF-REU Research Assistant..... (Summer 1997)**

*Department of Electrical and Computer Engineering, University of Minnesota—Twin Cities,* through an NSF Research Experience for Undergraduates grant. Researched performance irregularities of the Java Virtual Machine. Conducted research, programmed extensively, created a formal report and gave technical presentations.

**Lab Assistant ..... (Fall 1994 - Spring 1998)**

*Academic Computing and Networking Services, Carleton College.* Maintained student computer labs containing Mac OS and Windows machines, and a specialty lab containing A/V workstations with scanners and video equipment. Repaired and upgraded machines and resolved user problems.

**Co-founder and Lead Technical Director..... (1992)**

*EnVisions INK,* Minnetonka, MN, a small desktop-publishing company. Identified customers and sold business services.

**SOFTWARE SYSTEMS AND DATASETS**

TechLens and TechLens+, collaborative filtering-based computer science research paper recommenders. Built as research prototypes and demonstrations.

MovieLens, a collaborative filtering-based movie recommender website, <http://.movielens.umn.edu> . Responsible for system architecture, programming (with others), and user interface design for re-launch in May 2003.

MovieLens 1 million rating dataset, collected from the ratings database of MovieLens. Released for research use, currently in use by various universities and laboratories around the world.

**TECHNICAL QUALIFICATIONS**

Multiple years experience with several different computer operating systems including Mac OS 9/X, Windows 9x/Me/NT/2K/XP, Linux, Solaris, OpenVMS, and NeXTStep.

Computer languages known: Java, C, C#, C++, Perl, and JavaScript. Also familiar with OpenGL, HTML/CSS, XML/XSLT, SQL, and the Gnu set of programming utilities.

Advanced computer topics studied: information seeking, user interface design, usability, cryptography, user modeling, TCP/IP networking, 3D graphics, OOP, AI, database design, compiler design, computer organization and architecture, and microkernel & distributed operating systems.

Proficient with a wide variety of software and expert troubleshooter for software, hardware, and networking problems.

**PERSONAL ACTIVITIES**

Graduate of the Brave New Institute, the improvisational comedy training program of the Brave New Workshop, Minneapolis, MN (2002)

Bass guitarist, The Traces, a dance-pop quartet based in Minneapolis, MN (2001-2004)

Disc Jockey at KRLX, Carleton College radio station, 88.1 FM (1996-1998)

Plays volleyball, tennis, and ultimate frisbee. Also enjoys film, theatre, and ballroom dancing.