

GVU Center, College of Computing
Georgia Institute of Technology
85 5th Street NW
Atlanta, GA 30308

Email: jeremy@cc.gatech.edu
Web: <http://www.cc.gatech.edu/~jeremy>
Citizenship: United States Citizen

RESEARCH INTERESTS

My research synthesizes ideas and concepts in human-computer interaction (HCI), artificial intelligence (AI), psychology, and economics towards (1) the understanding and modeling of collaborative and socially-aided decision making and (2) the development of novel interactive computing technologies for information sharing and decision making. My current research employs a decision sciences perspective to explore how people use social navigation systems—systems that show the choices that other people have made, such as user product ratings or “most purchased items lists”—to make decisions. Social navigation systems are very popular on the Internet, but my research shows that they lead users to both good and bad decisions. My research identifies when social navigation systems lead to good decisions, when they lead to bad decisions, and what might be done to improve social navigation systems so that they more often lead users to good decisions. I also perform research in intelligent user interfaces.

Research Areas: Human-Computer Interaction, Intelligent User Interfaces, Computer-Supported Cooperative Work (CSCW), Decision Sciences, and Computational Biology.

EDUCATION

Ph. D. Computer Science, Georgia Institute of Technology, Expected May 2009

Atlanta, Georgia, USA

- Research area: Human-Computer Interaction
- Thesis Title: *Understanding the Social Navigation User Experience*
- Advisor: Elizabeth D. Mynatt
- Committee: W. Keith Edwards, Rebecca E. Grinter, David W. McDonald, Colin Potts

B.S. Computer Science, University of Wisconsin-Madison, May 2000

Madison, Wisconsin, USA

- Graduated with Honors & Phi Beta Kappa
- Thesis Title: *Automatically Labeling Web Pages Based on Normal User Actions*
- Advisor: Jude Shavlik

PUBLICATIONS

Submissions Under Review

- [R.1] Goecks, J. and Mynatt, E.D. (2009) Understanding the User Experience of Social Navigation.

Refereed Conference Papers¹

- [C.7] Goecks, J., Edwards, W.K., and Mynatt, E.D. (2009) Challenges in Supporting End-User Privacy and Security Management with Social Navigation. To Appear in the *2009 ACM Symposium on Usable Privacy and Security*.
- [C.6] Goecks, J., Volda, A., Volda, S., Mynatt, E.D. (2008) Charitable Technologies: Collaborative Computing in Nonprofit Fundraising. *Proceedings of the 2008 ACM Conference on Computer-Supported Cooperative Work (CSCW)*, p. 689-698. (Acceptance rate: 23%).
- [C.5] Goecks, J. and Mynatt, E.D. (2005). Supporting Privacy Management via Community Experience and Expertise. *Proceedings of 2005 Conference on Communities and Technologies*, p. 397-418. (Acceptance rate: 25%)
- [C.4] Goecks, J. and Mynatt, E.D. (2004). Leveraging Social Networks for Information Sharing. *Proceedings of 2004 ACM Conference on Computer-Supported Cooperative Work (CSCW)*, p. 328-331. (Acceptance rate: 26%)
- [C.3] Tullio, J., Goecks, J., Mynatt, E.D., and Nguyen, D. (2002). Augmenting Shared Personal Calendars. *Proceedings of 2002 ACM Conference on User Interface Software and Technology (UIST)*, p. 11-20. (Acceptance rate: 22%)
- [C.2] Goecks, J. and Cosley, D. (2002). NuggetMine: Intelligent Groupware for Opportunistically Sharing Information Nuggets. *Proceedings of 2002 ACM Conference on Intelligent User Interfaces (IUI)*, p. 87-94. (Acceptance rate: 31%)
- [C.1] Goecks, J. and Shavlik, J. (2000). Learning about Users by Unobtrusively Observing Their Normal Behavior: Surrogate Measures for User Interest. *Proceedings of 2000 ACM Conference on Intelligent User Interfaces (IUI)*, p. 129-132.

Invited Papers and Presentations

- [I.1] Goecks, J. (2008) An Informational Cascade Theory of Social Navigation (for End-User Privacy and Security Management). 2008 IBM HCI Symposium, November 20-21, 2008.

Book Chapters

- [B.1] Goecks, J. and Mynatt, E.D. (2005). Social Approaches to End-User Privacy Management. In Ed. L. Cranor and S. Garfinkel, *Security and Usability: Designing Secure Systems That People Can Use*. O'Reilly (2005).

Patents

- [P.1] Dumais, Susan T., Horvitz, Eric J., Cutrell, Edward B., Cadiz, Jonathan J., Jancke, Gavin, Sarin, Raman K., Robbins, Daniel C., Gupta, Anoop, Robertson, George G., Ringel, Meredith J., Goecks, Jeremy. Method and system for usage analyzer that determines user accessed sources, indexes data subsets, and associated metadata, processing implicit queries based on potential interest to users. U.S. Patent #

¹ Unlike in many academic fields, select conferences in human-computer interaction (e.g., CSCW, UIST, IUI) are premier publication venues intended for archival papers only. These conferences may exceed most HCI journals in their selectivity, visibility and impact. For conference papers, acceptance rates are provided when available.

7,162,473.

Theses and Dissertations

- [T.2] Goecks, J. (in progress) *Understanding the Social Navigation User Experience*. Ph.D. Dissertation, Georgia Institute of Technology.
- [T.1] Goecks, J. (2000) *Automatically Labeling Web Pages Based on Normal User Actions*. Honors Thesis, College of Letters & Science, University of Wisconsin, 2008.

Workshop Papers

- [W.2] Goecks, J. and Mynatt, E.D. (2002). Enabling Privacy Management in Ubiquitous Computing Environments through Trust and Reputation Systems. Workshop on Privacy in Digital Environments: Empowering Users, 2002 ACM Conference on Computer-Supported Cooperative Work.
- [W.1] Goecks, J. and Shavlik J. (1999). Automatically Labeling Web Pages Based on Normal User Actions. Workshop on Machine Learning for Information Filtering, 1999 IAAA International Joint Conference on Artificial Intelligence.

RESEARCH EXPERIENCE

Graduate Research Assistant, Fall 2001-Present
Georgia Institute of Technology, College of Computing

Exploring the application of social navigation systems to non-traditional domains, including privacy management, security management, and nonprofit fundraising. This research employs a decision sciences perspective, coupled with psychological and economic theories, to understand when social navigation systems lead users to good decisions and when they lead users to bad decisions. This research has also led to the development of an *informational influence model* of social navigation, and this model has been validated and quantified via a laboratory experiment.

Graduate Research Intern, Summer 2006
Intel Research, Digital Home Group

Designed and implemented Molera, a novel system that integrates context-aware computing and social navigation into a wiki web to help end users create, share, augment, and employ digital recipes. Digital recipes provide the ingredients and steps needed to perform an activity using digital devices networked in the home (e.g. stream music). The Molera system personalizes a collection of digital home recipes so that end users can easily find, utilize, and augment recipes that are relevant to their home network.

Graduate Research Intern, Summer 2005
Microsoft, User Interface Strategy Group

Designed and implemented an interactive user interface and an API to help users tag, annotate, and publish multimedia content from their PC desktop to their weblog. Interface leveraged drag-and-drop techniques to help users seamlessly “move” multimedia content

from their PC up to their weblog. The API to support the multimedia publishing leverages weblog APIs, RSS feeds, and XML-RPC functionality.

Graduate Research Intern, Summer 2002

Microsoft Research, Adaptive Systems and Interaction Group

Designed and developed GridViz, a personal, interactive software application for visualizing large document collections such as an email inbox or the documents on an individual's hard drive. GridViz enables users to quickly summarize document collections and compare summarizations using relationships between people, topics, and time in the collection.

Graduate Research Intern, Summer 2000

Accenture, Accenture Technology Labs

Designed and developed GroupCast system. GroupCast is an ambient, public display that uses profiles of people passing by to project content that is deemed to be of interest to both people in an effort to stimulate conversation among people and thereby increase social capital.

Research Assistant, Summer 1997

University of Wisconsin - Madison, Department of Mathematics

Funded by a grant from the L&S Honors Program. Assisted Professor Jim Kuelbs in research into the maximization of convex hulls in a two-dimensional plane. Wrote software that generated 2-dimensional curves, computed convex hulls, and searched for curves yielding the convex hull with maximum area given curve restrictions.

TEACHING EXPERIENCE

Graduate Teaching Assistant, Spring 2009

Georgia Institute of Technology, College of Computing

Graded term papers, counseled students on writing skills, facilitated classroom discussion, and performed guest lectures for CS 4001, Computers and Ethics. This course is an undergraduate, senior-level course; instructor: Dr. Colin Potts.

Graduate Teaching Assistant, Spring 2008

Georgia Institute of Technology, College of Computing

Developed course materials and performed guest lectures for CS3790, Introduction to Cognitive Science. This course is an undergraduate, senior-level course; instructor: Dr. Rosa Arriaga.

Graduate Teaching Assistant, Spring 2005

Georgia Institute of Technology, College of Computing

Graded term papers, counseled students on writing skills, facilitated classroom discussion, and performed guest lectures for CS 4002, Robots and Ethics. This course is an undergraduate, senior-level course; instructors: Dr. Ron Arkin and Dr. Charles Isbell.

Graduate Teaching Assistant, Spring 2004
Georgia Institute of Technology, College of Computing

Graded term papers and projects and performed guest lectures for CS 7450, Information Visualization. This course is an advanced graduate-level course; instructor: Dr. John Stasko.

Graduate Teaching Assistant, Fall 2002
Georgia Institute of Technology, College of Computing

Graded papers and projects, counseled students on writing skills, facilitated classroom discussion, and performed guest lectures for CS 6750, Human-Computer Interaction. This course is an introductory, graduate-level course; instructor: Dr. John Stasko.

Graduate Teaching Assistant, Fall 2001
Georgia Institute of Technology, College of Computing

Graded papers and performed guest lectures for CS 4000, Computerization and Society. This course is an undergraduate, senior-level course; instructor: Mr. Mike Nelson-Palmer.

PROFESSIONAL EXPERIENCE

User Experience Program Manager Intern, Summer 2001
Microsoft, Digital Experiences Division

Performed project management for several Windows Media Center PC features; wrote feature specifications, instituted deadlines, and oversaw the implementation and evaluation of owned features. Also championed the introduction of research prototypes into the Media Center.

Software Engineer Intern, May 1999-December 1999
IBM, Internet Services Group

Software development for IBM Websphere Payment Manager on the AS/400. Developed electronic payment protocols, HTTP servers, JDBC interfaces, and servlets.

AWARDS & HONORS

Graduate

- Presidential Fellowship, Georgia Tech, 2001-2007
- Tiger Teams Usable Security Research Grant, GVV Center, Georgia Tech, 2005-2006

Undergraduate

- Graduated with Honors, College of Letters and Science, University of Wisconsin-Madison, 2000
- Member of Phi Beta Kappa honor society, 2000
- Recipient of an Earl D. Johnson Scholarship, 1999
- Recipient of a George Enfield Frazer, Jr. Scholarship, 1999

- Voted Outstanding Tutor, University Tutoring Services, 1998
- L&S Honors Program Sophomore Summer Research Program, 1997

STUDENTS SUPERVISED

Robert Graham, Fall 2004-Spring 2005. Undergraduate in Computer Science.

Elizabeth Solomon, Spring 2005. Undergraduate in Computer Science

Roman Shtylman, Fall 2005-Spring 2006. Undergraduate in Computer Science

SERVICE & COMMUNITY

Conference Reviewer

- ACM Conference on Human Factors in Computing (SIGCHI) 2002-2009
- ACM Conference on Intelligent User Interfaces (IUI), 2001-2005
- ACM Conference on Computer-Supported Cooperative Work (CSCW), 2004-2008.

Tutoring

- Greater University Tutoring Services (GUTS), University of Wisconsin, 1997-2000
- Voted Outstanding GUTS Tutor, University of Wisconsin, Spring 1998

Community

- Captain & Coach of Georgia Tech Ultimate Frisbee Club Team, 2006-7
- Volunteer for Trees Atlanta Organization, 2007
- Volunteer for Atlanta Flying Disc Club (AFDC), 2007-Present