

Jesse Vig

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EDUCATION

- University of Minnesota**, Minneapolis, MN (GPA: 4.0/4.0) *Aug '08 – Present*
Ph.D. in Computer Science (expected August 2011), advisor: John Riedl
- University of Minnesota**, Minneapolis, MN (GPA: 4.0/4.0) *Sep '06 – Dec '08*
M.S. in Computer Science
- Oberlin College**, Oberlin, OH (GPA: 3.9/4.0) *Sep '92 – Dec '94*
B.A. in Mathematics
- Wesleyan University**, Middletown, CT (Academic average: 92.1%) *Sep '90 – May '92*

POSITIONS HELD

GroupLens Research, *Research Assistant*, University of Minnesota, Minneapolis, MN *Aug '08 – Present*

Conducted research on social tagging and recommender systems. Designed intelligent tagging applications using techniques from data mining and machine learning. Helped maintain MovieLens, an online movie recommender and tagging system serving 150,000 members. Published five articles based on work.

Developed skills in the following areas:

- Machine learning / data mining
 - Developed hierarchical regression model to compute the tag genome, a novel data structure encoding the relationship between tags and items.
 - Developed machine learning models to estimate tag quality and predict item ratings based on tags.
 - Applied techniques from information retrieval, classification, clustering, optimization, matrix factorization, and probabilistic graphical modeling.
- Interaction design
 - Designed interface for Movie Tuner, a natural-language conversational recommender inside of MovieLens. Traffic to movie detail pages increased by 52% after Movie Tuner launched. Featured on Lifehacker.com.
 - Designed interface for Tagsplanations, a system that explains recommendations using tags.
 - Helped design interface for Tag Expression, a tagging facility that captures user sentiment. Daily tagging activity tripled after Tag Expression launched.
- User studies
 - Empirically analyzed user behavior in various tagging applications.
 - Designed four online surveys with a total of 1,500 participants.

Fairview Hospitals, *Senior Programmer / Analyst*, Minneapolis, MN *Mar '97 – July '08*

Developed applications for admitting / discharging patients, storing medical records, interfacing with clinical systems, scheduling appointments, managing patient accounts, and reporting financial data. Coordinated with finance officers and care providers.

Plant Biology Department, Research Assistant, University of Minnesota
Performed protein sequence alignment and computed evolutionary trees, resulting in publication of journal paper.

Summer '91

OTHER PROJECTS

GeoGreeting.com, a Google Maps mashup for sending a novel form of greeting.

Nov '06 – Present

- Conceived, designed, and coded website, which has received over 2.3 million visits.
- Nominated for Best NetArt website at 2007, 2008, and 2010 Webby Awards (5 nominees annually).
- Featured in *Popular Science* magazine (October 2007) and various news media.

PUBLICATIONS

Peer-Reviewed Full Papers:

- [1] **J. Vig**, S. Sen, J. Riedl, "Navigating the Tag Genome," *IUI 2011*, **Best Paper nomination**.
- [2] **J. Vig**, M. Soukup, S. Sen, J. Riedl, "Tag Expression: Tagging with Feeling," *UIST 2010* (18% acceptance rate).
- [3] S. Sen, **J. Vig**, J. Riedl, "Tagommenders: Connecting Users to Items through Tags," *WWW 2009* (12% acceptance rate).
- [4] **J. Vig**, S. Sen, J. Riedl, "Tagsplanations: Explaining Recommendations Using Tags," *IUI 2009* (25% acceptance rate), **Best Paper award**.
- [5] S. Sen, **J. Vig**, J. Riedl, "Learning to Recognize Valuable Tags," *IUI 2009* (25% acceptance rate).
- [6] N. Plesofsky-Vig, **J. Vig**, and R. Brambl, "Phylogeny of the α -crystallin-related heat-shock proteins", *Journal of Molecular Evolution*, 1992.

Other Publications:

- [7] **J. Vig**, S. Sen, J. Riedl, "Computing the Tag Genome," *Technical Report*, University of Minnesota, 2010.
- [8] **J. Vig**, "Intelligent Tagging Applications: Beyond Folksonomy," Doctoral Symposium, *UIST 2010*.

HONORS

Best Paper Award, IUI Conference, 2009

Best Paper Nomination, IUI Conference, 2011

Webby Nominee for GeoGreeting.com, NetArt category (awarded to 5 websites annually) in 2007, 2008, 2010

Website of the Month for GeoGreeting.com, *Popular Science* magazine, October 2007

Phi Beta Kappa, Oberlin College, 1994

National Merit Scholarship winner, 1990

Selected for Minnesota state high school math team to compete at national competition, 1990

SERVICE

Program Committee Member: IUI 2011 workshop on Context-awareness in Retrieval and Recommendation

Reviewer: RecSys 2008, RecSys 2010, ACM-TIST, IJEC

SKILLS

Python, Java, SQL, R, Web development, JavaScript, Matlab, Weka, Eclipse, Subversion, Linux, Windows.

RESEARCH INTERESTS

Machine learning, data mining, social computing, human-computer interaction, intelligent interfaces.