

Benjamin C. Markines

CONTACT INFORMATION

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RESEARCH INTERESTS

My primary research interests are in Web search and data mining, social Web applications, information visualization, and social networks. Other interests include computer vision, high performance computing, and anything concerning the Web.

EDUCATION

Indiana University, Bloomington, Indiana USA

Ph.D. Computer Science, May, 2009

- Thesis: “Socially Induced Semantic Networks and Applications”
- Advisor: Filippo Menczer

Northern Illinois University, DeKalb, Illinois USA

M.S. Computer Science, May, 2001

- Concentration in system design and implementation

B.S. Computer Science, Cum Laude, December, 1999

PROFESSIONAL EXPERIENCE

International Business Machines, San Jose, California USA

Software Engineer

August 2001 to present

Network File System (NFS) developer for z/OS. Former duties included tools development for z/OS, network storage software development, and performance analysis software for storage servers.

Institute for Scientific Interchange Foundation, Torino, Italy

Researcher

August 2007 to August 2008

Developer of online tools for ranking authors based on the PACS dataset. Continue work on GiveALink.org and other Ph.D. student activities.

SBC Global Network, Ameritech, Hoffman Estates, Illinois USA

Software Engineer

May 2000 to August 2000

Designed and implemented a database for tracking tests of large billing applications.

PUBLICATIONS

Rossano Schifanella, Alain Barrat, Ciro Cattuto, Benjamin Markines, Filippo Menczer. Folks in folksonomies: Social link prediction from shared metadata. To appear in Proc. of WSDM 2010

Benjamin Markines, Ciro Cattuto, Filippo Menczer, Dominik Benz, Andreas Hotho, Gerd Stumme. Evaluating Similarity Measures for Emergent Semantics of Social Tagging. Proc. WWW 2009

Benjamin Markines, Ciro Cattuto, Filippo Menczer. Social Spam Detection. Proc. AIRWEB 2009

Benjamin Markines with Jessica Rubart. Socially Induced Semantic Networks and Applications. SIGWEB Newsletter, Autumn (Sept. 2009)

Benjamin Markines. Socially Induced Semantic Networks and Applications. Indiana University Computer Science Technical Report TR676. June, 2009

Filippo Radicchi, Santo Fortunato, Benjamin Markines and Alessandro Vespignani. Diffusion of Scientific Credits and the Ranking of Scientists. Physical Review E (2009)

Benjamin Markines, Filippo Menczer. A Scalable, Collaborative Similarity Measure for Social Annotation Systems. Poster Proc. HT 2009

Heather Roinestad, John Burgoon, Benjamin Markines, Filippo Menczer. Incentives for Social Annotation. Proc. of SIGIR2009 Demonstrations

Heather Roinestad, John Burgoon, Benjamin Markines, Filippo Menczer. Incentives for Social Annotation. Poster Proc. HT 2009

Benjamin Markines, Heather Roinestad, Filippo Menczer. Efficient Assembly of Social Semantic Networks. Proc. HT 2008 (Nominated for Best Paper)

Justin Donaldson, Michael Conover, Ben Markines, Heather Roinestad, Filippo Menczer. Visualizing Social Links in Exploratory Search. Proc. HT 2008

Weixia Huang, Katy Börner, Bruce Herr, and Ben Markines. Cyberinfrastructure Shell (CIShell): An OSGi-Based Framework for the Integration of Datasets and Algorithms. EclipseCON 2007, Santa Clara, California

Ben Markines, Lubomira Stoilova, and Filippo Menczer. Social Bookmarks for Collaborative Search and Recommendation. Proc. AAAI 2006

Ben Markines, Lubomira Stoilova, and Filippo Menczer. Implicit Tagging using Donated Bookmarks. Proc. WWW 2006 Workshop on Collaborative Web Tagging

Ben Markines, Lubomira Stoilova, and Filippo Menczer. GiveALink: A Social Recommendation System. NetSci Conference 2006, Bloomington, Indiana

Lubomira Stoilova, Todd Holloway, Ben Markines, Ana Maguitman, and Filippo Menczer. GiveALink: Mining a Semantic Network of Bookmarks for Web Search and Recommendation. Proc. KDD Workshop on Link Discovery: Issues, Approaches and Applications, 2005

ACADEMIC
EXPERIENCE

Indiana University, Bloomington, Indiana USA

Research Assistant

August 2005 to May 2009

Researcher and lead developer of the GiveALink project. GiveALink is a public site that accepts bookmark donations from the Web community. The bookmarks are analyzed for recommendation, personalization, and visualization.

www.givealink.org

Research Assistant

January 2006 to December 2006

Researcher and software developer for the Network Workbench. A tool designed for network scientists to manage, analyze, and visualize networks.

nwb.slis.indiana.edu

Graduate Teaching Assistant

September 2003 to May 2005

Instructor of programming lab sections as well as holding office hours and grading for the second class in the IU Computer Science undergraduate curriculum.

Northern Illinois University, DeKalb, Illinois USA

Graduate Teaching Assistant

January 2000 to May 2001

Instructor for an introduction to computer science class using the C programming language. Responsibility included proctoring exams, developing machine projects, and grading.

Undergraduate Fellowship

August 1999 to December 1999

Responsibilities included grading quizzes, exams, and homework in addition to holding office hours.

PROFESSIONAL
SERVICE

Program Committee

International ACM Conference on Hypertext and Hypermedia (HT 2008, HT 2009)

Paper Reviews

National Conference on Artificial Intelligence (AAAI 2007)

International Annual ACM SIGIR Conference (SIGIR 2006)

MAJOR PROJECTS

GiveALink

A social bookmarking site where users may donate bookmarks and find recommendations. The recommendations are created from a collection of bookmarks aggregated together to form a semantic similarity network.

www.givealink.org

Parallel Graph Visualization

Design parallel graph algorithms for visualization.

www.boost.org/libs/graph/doc/index.html

Augmented SimCity

Development of an augmented reality application based on SimCity. Evaluated technologies such as ARToolkit, jARToolkit, and GL4Java.

Fluency

Enable non-programmers to develop their own applications without knowledge of a computer programming language.

fluency.knownspace.org

Topical Crawlers

Develop and evaluate topical crawlers using support vector machines, naïve bayes, and cosine similarity to classify Webpages.

Three dimensional Wavelet Compression

Applying Wavelet compression to a three dimensional dataset, i.e., a movie.

HONORS AND
ACTIVITIES

Iota Nu Phi Honor Society.

Demos on sixearch.org and givealink.org at CSI Piemonte Complexity Conference, Torino, Italy.

Invited speaker, Theoretical Aspects and Models of Large, Complex and Open Information Networks, ISI Foundation, Torino, Italy.

Invited speaker, satellite workshop Enhancing Social Interaction: Recommendation Systems, Reputation, P2P and Trust, European Conference on Complex Systems (ECCS07), Dresden, Germany.

Networks and Complex Systems Open House 2006, Bloomington, Indiana. Presented current research to prospective graduate students and faculty.

Intel International Science and Engineering Fair 2006. Indiana Convention Center, Indianapolis, IN.

Computer Science Graduate Student Association whip for the 2005/2006 school year.

Red Hat Certified Engineer for Red Hat Linux 9 2003.

Graduated Cum Laude 1999.

Dean's List in Spring 1998, Fall 1999, Spring 2000, and Fall 2000.