

HUSEYIN OKTAY

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RESEARCH INTEREST In general, I am interested in the new emerging field of *Computational Social Science* and understanding *human social dynamics* in complex domains. In particular, I am intrigued by designing and developing knowledge discovery methods for estimating causal relationships about human dynamics in complex relational domains.

EDUCATION **Ph.D. in Computer Science**
University of Massachusetts, Amherst, MA, (Expected) June 2012
Knowledge Discovery Laboratory
Advisor: Assoc. Prof. David D. Jensen

M.S. in Computer Science
University of Massachusetts, Amherst, MA, May 2010
Knowledge Discovery Laboratory
Advisor: Assoc. Prof. David D. Jensen

B.S. in Computer Science
Bogazici University, Istanbul, Turkey, June 2007
Thesis Title: Spam Filtering for Turkish
Advisor: Assist. Prof. Tunga Gungor

PUBLICATIONS **Distance Estimation for Very Large Networks using MapReduce and Network Structure Indices**
Oktay, H., Balkir S.A., Foster I., Jensen, D.D.
Workshop on Information Networks, 2011, New York, NY.

Causal Discovery in Social Media Using Quasi-Experimental Designs
Oktay, H., Taylor, B.J., Jensen, D.D.
Proceedings of the SIGKDD/ACM Workshop on Social Media Analytics. Washington, DC. 2010.

Learning Causal Models of Relational Domains
Maier, M.E., Taylor, B., Oktay, H., Jensen, D.D.
Proceedings of the Twenty-Fourth Conference on Artificial Intelligence (AAAI-2010). Atlanta, GA. 2010.

EXPERIENCE **Research Assistant** **October 2010 - Present**
Knowledge Discovery Laboratory
University of Massachusetts, Amherst, MA

- Designing relational matching methods for causal discovery from observational data
- Designed and developed large-scale graph clustering algorithm with MapReduce paradigm

Summer Intern **July 2010 - October 2010**
Mitsubishi Electric Research Laboratory, Cambridge, MA
Supervisor: *William Yerazunis*, Senior Principal Research Scientists

- Implemented and tested Support Vector Machines for multi-class document classification using CRM114 open source discriminator

Research Scientist Student **October 2009 - July 2010**

Human Social Dynamics Group
 Yahoo! Research, New York, NY

Supervisor: *Duncan J. Watts*, Principal Research Scientist

- Designed and executed observational analysis of social media systems by exploiting Quasi-Experimental Designs to understand potential causal relationships

Research Assistant **September 2009 - July 2010**

Knowledge Discovery Laboratory
 University of Massachusetts, Amherst, MA

- Developed relational causal structure learning algorithm: *Relational PC*

Summer Intern **May 2009 - September 2009**

Caine Mitter & Associates Incorporated, Northampton, MA

- Implemented verification rules about mortgage financing

Teaching Assistant **September 2008 - May 2009**

University of Massachusetts, Amherst, MA

- Assisted the course, *Representing, Storing, Retrieving Information*
- Assisted the course, *Introduction to Artificial Intelligence*

Research Assistant **January 2008 - September 2008**

Robotics and Biology Laboratory
 University of Massachusetts, Amherst, MA

- Developed methods for protein motion by exploiting ideas from Robotics

HONORS

- IBM Research Travel Award for 16th ACM SIGKDD Conf., Washington, DC, 2010

COMPUTER SKILLS

Languages: MapReduce, Bash Scripting, C, C++, JAVA, CBuilder, Perl, Python, MySQL, PhP, JSP, HTML, LISP, Scheme, Prolog, LaTeX
Software: Hadoop, Matlab, R-Statistical Package, Fathom

PROFESSIONAL SERVICE

- *Program committee member* for The third International Conference on Social Informatics
- *Reviewer* for Journal of Information Technology and Politics
- *Reviewer* for NESCAI 2010 :
 The fourth North East Student Colloquium on Artificial Intelligence

EXTRACURRICULAR ACTIVITIES

- Participated in *Machine Learning Summer School*, Sardinia, Italy (May, 2010)
- Graduate Student Representative (January 2011 - present)
- Member of Machine Learning Friends Lunch Organizing Committee (September 2009 - present)

- Senator representing Computer Science Department in Graduate Student Senate (September 2007 - present)
- Member of Finance Committee in Graduate Student Senate (September 2007 - present)
- Member of Hiring Committee in Graduate Student Senate (For 2008,2009)

HOBBIES

- Theatre, Acting, Cinema, Reading, Biking, Tennis, Swimming, Soccer

REFERENCES

- Available upon request