Thomas P. O'Hara www.cs.nmsu.edu/~tomohara
4004 Mica Cove thomas.paul.ohara@gmail.com
Austin, Texas 78749-3183 (512) 291-1630

Education

August 2005   Ph.D., Computer Science   New Mexico State University
Empirical Acquisition of Conceptual Distinctions via Dictionary Definitions

August 1992   M.S., Computer Science   East Stroudsburg University
Tempus: A Task-Oriented System for Temporal Analysis and Reasoning

August 1989   B.S., Computer Science   Penn State University

Teaching Experience

Spring 2004   Upward Bound: Computers I & III   Instructor
Fall 2003   CS 110: Computer Literacy   Teaching Assistant
Fall 2002   CS 571: Programming Language Semantics   Teaching Assistant
Spring 2002   CS 167/467: C Programming   Instructor

Computer Science Experience

Aug 2006 – March 2010   Fast, Inc., Columbia, MD[†]
Prototyped statistical text categorization system using Wikipedia as training data to augment knowledge-based classifier in RetrievalWare enterprise search system. Revised multilingual language preprocessors, including Arabic PDF conversion fixups. Updated statistical language and encoding detection system (e.g., training over Wikipedia). Tested integration of Fast enterprise system into Microsoft Office SharePoint Server, as Fast now is a subsidiary of Microsoft, Inc.
[†]*Business unit at Columbia, MD formerly part of Convera, Inc. (until August 2007).*

Aug 2005 – Aug 2006   UMB School of Medicine (at UMBC), Baltimore, MD
Developed interface for medical simulation system. Helped to design the script-based simulator, in particular the interaction with the disease progression component modeled using finite state automata. Supervised graduate assistants.

June 2004 – July 2005   UMBC CS&EE Department, Baltimore, MD
Postdoctoral research assistant for knowledge-based computational linguistics. Developed system for reference resolution of definite descriptions as well as pronominal anaphora. Helped to make the server-side web interface robust.

Feb – May 2004   NMSU Upward Bound, Las Cruces, NM
Part-time instructor of computer literacy courses for high school students.

Jan 2002 – Dec 2003   NMSU CS Department, Las Cruces, NM
(Part-time) Extended system using statistical classification for natural language learning. Taught introductory programming course and assisted teaching others.

Computer Science Experience (continued)

Aug 1999 - Jan 2002   Cycorp, Inc., Austin, TX
Performed research and development for the lexical component of the Cyc natural language front-end. Developed the Dictionary Assistant for the RKF project. Refined the existing lexicon code, including HTML interfaces for adding lexical information. Prototyped applications using the Cyc English lexicon.

Aug 1995 - May 1999   NMSU Computing Research Laboratory, Las Cruces, NM
(Part-time) Developed a Bayesian network system for word-sense disambiguation. Extended a tool for statistical classification for linguistic applications. Developed system for aligning ontologies. Helped with systems for temporal reference resolution and for named-entity recognition.

Summer/Fall 1995   Personal project
Developed freeware device drivers for SoundWave32 under Windows 95 & NT.

June 1994 - Aug 1995   Volt Technical Services, Mountlake Terrace, WA
Contract programmer at Microsoft: Ported and enhanced System Information tool to Windows 95 and Windows NT in C/C++. Developed setup programs for software development kits. Wrote text utilities for multimedia authoring project.

April - May 1994; Fall 1996   Personal project
Developed freeware crossword puzzle assistant using definition lookup for clues.

August 1992 - Mar 1994   Datametrics Systems Corporation, Fairfax, VA
Developed a system performance data collector for Windows NT in C. Implemented ViewPoint's spike-detection and formatted-text display features.

September 1990 - May 1992   East Stroudsburg University, East Stroudsburg, PA
(Part-time) Enhanced a natural language parser. Revised a plan recognition system, porting code from Pascal to C and graphics into GKS.

January - June 1990   Systems Innovation Inc., Hallstead, PA
Programmed database systems for fire and police departments in Dataflex.

August 1985 - March 1986   Penn State University, University Park, PA
(Part-time) Updated a tape-backup interface to a Unix archival system.

January - August 1985   IBM Corporation, San Jose, CA
Implemented performance-evaluation management information system in Basic.

July - December 1984   IBM Corporation, Kingston, NY
Tested routines for PHIGS-based graphics system in PL/1.

Publications

Journal Articles

O'Hara, T. and J. Wiebe, (2009), "Exploiting Semantic Role Resources for Preposition Disambiguation", *Computational Linguistics*: 35-2: 151-184.

Wiebe, J., T. O'Hara, T. Öhrström-Sandgren, K. McKeever (1998), "An Empirical Approach to Temporal Reference Resolution", *Journal of Artificial Intelligence Research* 9: 247-293.

O'Hara, T., J. Wiebe, and R. Bruce (2000), "Selecting Decomposable Models for Word-sense Disambiguation: The GRLING-SDM System*", Computers and the Humanities* 34 (1-2): 159-164, Special Issue on SENSEVAL.

Conference Papers

O'Hara, T., S. Bertolo, M. Witbrock, B. Aldag, et al. (2004) "Inferring parts of speech for lexical mappings via the Cyc KB", in *Proc. COLING-2004.*

O'Hara, T., and J. Wiebe (2003), "Preposition Semantic Classification via Penn Treebank and FrameNet", in *Proc. Conference on Natural Language Learning (CoNLL-03).*

O'Hara, T., and J. Wiebe (2003), "Classifying functional relations in Factotum", in *Proc. Conference on Intelligent Text Processing and Computational Linguistics (CICLing-2003).*

Wiebe, J., R. Bruce, and T. O'Hara (1999), "Development and Use of a Gold Standard Data Set for Subjectivity Classifications", in *Proc. 37th Annual Meeting of the Association for Computational Linguistics (ACL-99).*

Wiebe, J., T. O'Hara, K. McKeever, and T. Öhrström-Sandgren (1997), "An Empirical Approach to Temporal Reference Resolution", in *Proc. 2nd Conference on Empirical Methods in Natural Language Processing (EMNLP2).*

Workshop Papers

O'Hara, T., R. Bruce, J. Donner, and J. Wiebe (2004), "Class-based Collocations for Word-Sense Disambiguation", in *Proc. Senseval-3 Workshop on the Evaluation of Systems for the Semantic Analysis of Text.*

O'Hara, T., N. Salay, M. Witbrock, D. Schneider, et al. (2003), in *Proc. Fifth International Workshop on Computational Semantics (IWCS-5).*

O'Hara, T., K. Mahesh, and S. Nirenburg (1998), "Lexical Acquisition with WordNet and the Mikrokosmos Ontology", in *Proc. COLING-ACL '98 Workshop on Usage of WordNet in Natural Language Processing Systems.*

Wiebe, J., T. O'Hara, and R. Bruce (1998), "Constructing Bayesian Networks from WordNet for Word-Sense Disambiguation", in *Proc. Workshop on Usage of WordNet in Natural Language Processing Systems.*

Poster Papers

McShane, M., S. Nirenburg, S. Beale, T. O'Hara, B. Jarrell, G. Fantry and J. Raczek (2006), "Cognitive Simulation in Virtual Patients", *in Proc. Florida Artificial Intelligence Research Society Conference (FLAIRS-2006).*

O'Hara, T., and J. Wiebe (2004), "Empirical Acquisition of Differentiating Relations from Definitions", in *Proc. COLING Workshop on Enhancing and Using Electronic Dictionaries.*