

Neil A. Ernst, B.Sc., M.Sc.

CONTACT INFORMATION

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RESEARCH STATEMENT

My primary motivation is helping people satisfy their goals by leveraging complex and disparate information sources. Currently, I am focusing on cognitive models of complex software-based systems. My research looks at mechanisms for supporting the comprehension of such models as they evolve and adapt to outside pressures.

EDUCATION

University of Toronto, Toronto, ON, Canada

Ph.D. candidate, Computer Science, expected May 2008

- Advisor: Dr. John Mylopoulos

University of Victoria, Victoria, BC, Canada

M.Sc., Computer Science, May 2004

- Thesis Topic: “An Adoption-Centric Customization Framework for Visualization of Knowledge-Based Systems”
- Advisor: Dr. Margaret-Anne Storey

B.Sc., Geography (*cum laude*), May 2001

ACADEMIC EXPERIENCE

Research Assistant

May 2001–present

Conducting research, including coordinating research of several students collaborating as part of a large grant with the US National Cancer Institute.

Instructor

Various

Taught a variety of lectures in introductory computer science courses, and one week of teaching for grad course in Information Visualization.

Teaching Assistant

2002–present

Head teaching assistant for introductory programming courses. Duties included lab instruction and preparation, fielding of student inquiries, maintenance of course website, and oversight of graders.

PAPERS IN REFEREED JOURNALS AND CONFERENCE PROCEEDINGS

N. A. Ernst, G. A. Jamieson, J. Mylopoulos, Integrating requirements engineering and cognitive work analysis: a case study, presented at *Conf. on Systems Engineering Research*, Los Angeles, USA, April 14, 2006.

N. A. Ernst, M.-A. Storey, P. Allen, Cognitive Support for Ontology Modeling, *Int. J. of Human-Computer Studies*, 62(5), pp. 553-577, 2005.

WORKSHOP PAPERS AND CONFERENCE POSTERS

N. A. Ernst, Yijun Yu, and J. Mylopoulos, Visualizing non-functional requirements, presented at *Workshop on Requirements Engineering Visualization at RE06*, Minneapolis, MN, 2006.

N. A. Ernst, M.-A. D. Storey, P. Allen, and M. A. Musen, Addressing cognitive issues in knowledge engineering with Jambalaya, presented at *Workshop on Visualization in Knowledge Engineering at KCAP 03*, Sanibel Island, FL, 2003.

N. A. Ernst, Adoption-Centric Knowledge Engineering, presented at *Workshop on Adoption-Centric Software Engineering at ICSE 2003*, Portland, OR, 2003.

M.-A. D. Storey, N. F. Noy, M. A. Musen, C. Best, R. W. Ferguson, N. Ernst, Jambalaya: an interactive environment for exploring ontologies, demonstration and poster at *Int. Conf. on Intelligent User Interfaces*, San Francisco, USA, 2002.

M.-A. D. Storey, M. A. Musen, J. Silva, C. Best, N. Ernst, R. Ferguson, and N. F. Noy, Jambalaya: Interactive visualization to enhance ontology authoring and knowledge acquisition in Protege, presented at *Workshop on Interactive Tools for Knowledge Capture, K-CAP-2001*, Victoria, B.C. Canada, 2001.

REPORTS

N. A. Ernst, S. M. Easterbrook, J. Mylopoulos, Code forking in open-source software: a requirements perspective, February 28, 2006.

N. A. Ernst and M.-A. Storey, A Preliminary Analysis of Visualization Requirements in Knowledge Engineering Tools, University of Victoria, Victoria, *CHISEL Technical Report*, August 19 2003.

CONFERENCE AND WORKSHOP COMMITTEES

Co-Chair, *Workshop on the Latest Technologies*, held in conjunction with CASCON2005, October 12, 2005.

Co-Chair, *First Int. Workshop on Visualization in Knowledge Engineering (VIKE03)*, held in conjunction with the Int. Conf. on Knowledge Capture (KCAP), October 25, 2003.

Co-Chair, *2nd Int. Workshop on Visualization in Knowledge Engineering (VIKE04)*, held in conjunction with the 6th International Protege Conference, July 6-9, 2004.

WORK EXPERIENCE

BC Water, Land, and Air Protection (formerly BC Assets and Land Corporation), Surrey, BC
Regional Data Architect **January, 1999 - December, 1999**
Responsible for management of spatial data for Commercial Recreation section as well as other software development and GIS projects.

BC Ministry of Environment, Surrey, BC

Geographic Information Systems Analyst **September, 1996 - September, 1997**
Responsible for: creation of GIS scripts and mapping utilities, data acquisition and maintenance, GPS fieldwork, website design and maintenance, and user support.

HONORS AND AWARDS

- National Science and Engineering Research Council Canadian Graduate Scholarship (CGS-D), 2005-2007
- National Science and Engineering Research Council Master's Scholarship (PGS-M), 2002-2003
- Faculty nominee, Governor-General's Silver Medal, 2004
- Provost's Award for Academic Excellence in Athletics, University of Victoria, 2002
- T.S. MacPherson Entrance Award, University of Victoria, 1995-2001
- Provincial Scholarship, Province of British Columbia, 1995

INTERESTS AND ACTIVITIES

- Outdoor activities, such as hiking, canoeing, windsurfing
- Mathematics education with JUMP