

Steven H. Gardiner

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Research Experience

Social Accessibility IBM Tokyo Research Lab (Yamato, Japan) Summer 2010 with Chieko Asakawa and Hironobu Takagi

Construction of data structures for representation of tabular data in an end user crowd-sourcing approach to the specification of web accessibility transcoders

MIXER Carnegie Mellon (Pittsburgh, PA) Spring 2009-present with Anthony Tomasic, John Zimmerman and Aaron Steinfeld

A programming-by-demonstration system for integrating data from web sources into a user-specified spreadsheet form, including script induction from user actions and online learning of text extractors.

RERC on Accessible Public Transportation Carnegie Mellon (Pittsburgh, PA) Spring 2008-present with Anthony Tomasic and Aaron Steinfeld

Investigation of applying Machine Learning and Language Processing to the problem of intelligently, accessibly assisting mobile computer users report problems with a mass-transit system

RADAR Space/Time Carnegie Mellon (Pittsburgh, PA) Summer 2006-Winter 2008 with Eugene Fink

Investigation of scheduling under uncertainty in the context of a conference-planning scenario; part of the RADAR project (Reflective Agent with Distributed Adaptive Reasoning)

Computational Virology Project Carnegie Mellon (Pittsburgh, PA) Fall 2005-Fall 2006 with Andrew Walsh and Roni Rosenfeld

Investigation of binding sites in protein structures; highly-conserved segments in protein amino acid sequences

Industry Experience

Programmer/Analyst III Continuing Education of the Bar (legal publishing branch of the University of California) (Oakland, CA) Fall 2001-Fall 2006

Worked with a team to implement an end-to-end single-sourced legal publishing system in XML for use by nontechnical users, integrated with custom software for automated legal research

Associate Software Engineer bigchalk.com (formerly Infonautics, Inc.) (Berwyn, PA) Fall 1998-Fall 2000

Led a team of 4-10 developers in maintaining and refining a system for automated extraction of news data from various feeds with various formats, as well as refining the system using standards-based technologies

Education

Carnegie Mellon University (Pittsburgh, PA) PhD in Language Technologies anticipated Fall 2012
GPA: 3.83 / 4.0 (Major GPA: 3.89)

Carnegie Mellon University (Pittsburgh, PA) MSc in Language Technologies August 2008
GPA: 3.80 / 4.0 (Major GPA: 3.93)

Carleton College (Northfield, MN) BA with a major in Mathematics and Studio Art *magna cum laude* June 1998 GPA: 3.59 / 4.0 (Major GPA: 3.78)

Universidad de Concepción (Concepción, Chile) Study Abroad in Art Fall 1996

Publications

Gardiner, S., Tomasic, A., Zimmerman, J., Aziz, R. and Rivard, K., *Mixer: Mixed-initiative Data Retrieval and Integration by Example*, submitted for publication.

Gardiner, S., Fink, E. and Carbonell, J.G., *Scheduling with Uncertain Resources: Learning to Make Reasonable Assumptions*, *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, 2008.

Information Extraction Final Project Presentation *Online Named Entity Recognition with a Multi-class Perceptron Conditional Graphical Model* December 2009

2008 LTI Student Research Symposium *Learning to Make Reasonable Assumptions* September 2008

Graphical Models Final Project Poster Session *Physical Network Models on Time Series Data* November 2007

2006 LTI Student Research Symposium *Lengths of Antigen-Antibody Binding Sites across PDB Data* October 2006

Graduate Coursework

Information Extraction	Lambda Calculus
Methods of Optimization	Language and Statistics I
Grammar Formalisms	Software Engineering for Information Systems
Grammars and Lexicons	Probabilistic Graphical Models
Statistical Machine Learning	Information Retrieval
Self-Paced Lab in NLP	Intermediate Statistics
Algorithms for NLP	Machine Learning
Knowledge Representation and Use in Computers	

Skills

Programming Languages: Java, C/C++, Javascript/ECMAScript, Prolog, Perl, Python, Lisp, C#(.NET), R/S, XSLT, *sh, Matlab, Scheme, lex/yacc (JFlex/CUP)

Publishing Technologies: L^AT_EX, XSL-FO

Database Technologies: SQL, Hibernate, PostgreSQL, Oracle, JDBC, ODBC, BerkeleyDB

XML Technologies: XML, XSLT, XPath, XSL-FO, XHTML, XML Schema, Schematron, SGML

Version Control Systems: Subversion, Mercurial, CVS, Rational ClearCase

Human Languages: English(Native), German(Proficient), Spanish(Intermediate), Bulgarian(Intermediate)