

Bill Howe
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EDUCATION

Computer Science Phd Candidate, expected to defend November 2006
Portland State University, Department of Computer Science, Portland, OR
Advisor: David Maier
Dissertation: “*GridFields: Model-Driven Data Transformation for the Physical Sciences.*”

BS Industrial and Systems Engineering, with Honors, March 1999
Georgia Institute of Technology, School of Industrial and Systems Engineering, Atlanta, GA

RESEARCH INTERESTS

Science and Engineering Databases, Unstructured Metadata, Scientific Workflows

REFEREED PUBLICATIONS

Bill Howe, David Maier. “*Smoothing the ROI Curve for Scientific Data Management Applications,*”
Third Biennial Conference on Innovative Data Systems Research, January 2007, Asilomar, CA.

Laura Bright, David Maier, Bill Howe. “*Managing the Forecast Factory,*” Workshop on Scientific
Workflows, 2006, Atlanta, GA. (SciFlow 2006, co-located with ICDE 2006)

Bill Howe, David Maier. “*Algebraic Manipulation of Scientific Datasets,*” The VLDB Journal, 14(4),
November 2005

Bill Howe, David Maier. (demo) “*Querying and Visualizing Gridded Datasets for e-Science,*”
International Conference on Data Engineering, 2005, Tokyo, Japan. (ICDE 2005)

Bill Howe, David Maier. “*Retrofitting a Data Model to an Existing Environmental Repository,*”
Statistical and Scientific Database Management Conference, 2005, Santa Barbara, CA. (SSDBM 2005)

Bill Howe, Kuldeep Tanna, Paul Turner, David Maier. “*Emergent Semantics: Towards Self-Organizing
Scientific Metadata*” International Conference on Semantics for a Networked World, 2004, Paris,
France. (SFNW 2004, co-located with SIGMOD 2004)

Bill Howe, David Maier. “*Algebraic Manipulation of Scientific Datasets,*” International Conference on
Very Large Databases, 2004, Toronto, Canada. (VLDB 2004)

Bill Howe, David Maier, Antonio Baptista. “*A Language for Spatial Data Manipulation,*” Journal of
Environmental Informatics, 2(2), December 2003

OTHER PUBLICATIONS

Bill Howe, David Maier. “*Modeling Data Product Generation,*” Data Derivation and Provenance
Workshop, Global Grid Forum, 2002, Chicago, IL. (workshop co-located with GGF 2002)

Matthew Weaver, Bill Howe, Lois Delcambre, “*Representing, Exploiting, and Extracting Metadata
with Metadata++,*” National Conference for Digital Government Research, 2002, Los Angeles,
CA.(dg.o 2002)

HONORS

VLDB 2004: one of 4 best papers (of 81) selected for publication in VLDB Journal, 14(4), Nov. 2005
2nd Place in Student Research Symposium competition at Oregon Graduate Institute, 2003
Research Proficiency Exam passed “with distinction,” March 2003
Graduated with Honors, Georgia Tech, March 1999

PROFESSIONAL EXPERIENCE

Oregon Health and Science University, Beaverton OR Sept 06 – present
Senior Research Associate
Acting internally as data architect for forecast, hindcast, and observation data, and acting externally as the technical representative to the national Integrated Ocean Observing System (IOOS) effort on behalf of two groups: the National Science Foundation Science and Technology Center for Coastal Margin Observation and Prediction (CMOP), and the Northwest Association of Networked Ocean Observing Systems (NANOOS). Additional responsibilities include teaching and scholarly publication.

Independent Consultant, Seattle WA Oct 00 – Aug 01
Technical Lead, Project for **Microsoft Consulting Services**, Redmond, WA
Redesigned interfaces between third-party time and expense software and Microsoft's internal legacy systems, removing 50% of the manual procedures. Voted "favorite developer" by QA team.

Independent Consultant for Siebel Systems, Seattle, WA Sep 00 – Oct 00
Lead Developer, Project for **Schlumberger Oil Services**, Houston, TX
Designed, built, and deployed a rule-based application for constructing complex orders on the web to meet a three-week-away trade show deadline. Managed the technical team of 3.

Deloitte Consulting, Seattle, WA Aug 00 – Sep 00
Systems Analyst, Project for **Verizon Wireless**, Seattle, WA
Researched requirements for a new Wireless Service Billing System, and co-authored the RFP.

Deloitte Consulting, Atlanta, GA Sep 99 – Aug 00
Systems Analyst, Project for **EXCEL Communications**, Dallas, TX
Integrated call center software with legacy billing and order systems as part of a 100-head team helping EXCEL break into the newly deregulated local telephone market. Acted as technical "subject matter expert" regarding systems integration.

TEACHING

Instructor, *Scientific Data Management*. Co-teaching with Laura Bright, Phd.
Portland State University, Summer 2006. (<http://www.cs.pdx.edu/~howe/cs410>)

Teaching Assistant, Object Data Management. Instructor: David Maier
OGI School of Science and Engineering at OHSU, Spring 2004.

Teaching Assistant, Principles of Databases, Fall 2003. Instructors: David Maier, Lois Delcambre.
OGI School of Science and Engineering at OHSU, Fall 2004

PROFESSIONAL SERVICE

Program Committee, dg.o 2006
Program Committee, dg.o 2005
Demonstrations Program Committee, SIGMOD 2005
Student Session Program Committee, dg.o 2004

LANGUAGES AND TOOLS

Python, C++, Java, C#, XML, XSLT, Javascript; PostgreSQL, MySQL, SQL Server, DB2; etc.

PERSONAL

Cooking and food science, regionalist cuisine, cue games, film trends, home automation

REFERENCES

Available on request. My thesis advisor, David Maier is a good place to start. (maier@cs.pdx.edu)