# Uri Dekel — Curriculum Vitae

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## Education

**Ph.D. in Software Engineering** **09/2003 – 05/2009 (Expected)**
***School of Computer Science, Carnegie Mellon University, Pittsburgh, PA***
- Dissertation: "Designing a memory-aid for software developers"
- Supervisor: Professor James D. Herbsleb, CMU
- Committee members: Professor Brad A. Myers (CMU), Professor Gail C. Murphy (University of British Columbia), Professor Andre van der Hoek (University of California, Irvine)

**M.S. in Software Engineering** **Received 12/2006**
***School of Computer Science, Carnegie Mellon University, Pittsburgh, PA***

**M.S. in Computer Science (cum laude)** **03/2000 – 03/2003**
***Department of Computer Science, Technion – Israel Institute of Technology, Haifa, Israel***
- Thesis: "Revealing class structure in OOP with concept lattices"
- Supervisor: Professor Joseph Gil

**B.S. in Computer Science (cum laude)** **03/1997 – 02/2000**
***Department of Computer Science, Technion – Israel Institute of Technology, Haifa, Israel***
- Multiple semesters on Dean's and Provost's Lists

## Work Experience

**Research and Development (Internship)** **05/2004 – 08/2004**
***Collaborative User Experience Group, IBM Research, Cambridge, MA***
- Developed an Eclipse-based framework in Java for conducting research on interruption management in software development; co-inventor on related patent application.

**Research and Development** **10/2002 – 07/2003**
***Software Group, IBM Research, Haifa, Israel***
- Several projects including tools for supporting asset management and cross-platform porting (Primarily in Java/J2EE)

**Software Developer** **07/1998 – 11/2000**
***System Assurance and Validation, Intel Corporation, Haifa, Israel***
- Several C++ projects including HW abstraction layers and an integrated debugging tool
- Recipient of two "Employee of the Month" awards from the SV department

## Research Awards

- Accenture Graduate Fellowship for the 2008-2009 academic year
- IBM Ph.D. Fellowship for the 2005-2006 academic year
- ACM SIGPLAN Student Research Competition at OOPSLA 2005, 2nd Place
- Best Graduate Student Poster Award, 2001 Israeli Association for Informatics

## Research Community Activities

- Workshop co-organizer for "Wikis for Software Engineering" at ICSE 2009, at WikiSym 2008, and at OOPSLA 2007
- Paper reviewer for ACM 2008 Conference on Computer-Supported Cooperative Work
- Paper reviewer for ACM 2008 International Symposium on Wikis
- Paper reviewer for ACM 2006 Conference on Computer-Human Interaction
- Research poster committee for ACM OOPSLA Conference, 2004, 2005, 2006

## Contract Work

- Consulting on auction systems and algorithms, SilvaQuest Inc., Somerville, MA 2000
- Database development, National Water Research Institute, Haifa, Israel 1998
- Technical translations, Focus Computers Publishing, Ramat-Gan, Israel 1996

## Software Development Skills

- Extensive development and teaching experience in object oriented design methodologies
  - Also conducted research on collaborative use of UML
- Extensive development and teaching experience in Java
  - J2EE APIs including JMS, Servlets, Hibernate, JSP, EJBs
  - Development of Eclipse plugins
  - Also conducted research on API usability and documentation
- Extensive development and teaching experience in C++
- Developed database-driven applications via SQL, JDBC, Hibernate
- Some server-side web development experience (primarily via J2EE)
- Some client-side web development (primarily via Flash and JavaScript)
- Some experience in X86 Assembly language
- Some experience in X86 Assembly, VB 6.0, Smalltalk, Lisp, Pascal and other languages
- Familiar with microprocessor and 3D accelerator design and testing

## Major Systems Built

- eMoose – A memory aid for software development as part of my PhD thesis. Published tool is an Eclipse plug-in that allows function authors to tag directives in the documentation and "pushes" these directives into the awareness of users examining calling code (http://emoose.cs.cmu.edu). A client-server version allows user communities to collaboratively annotate, share, and distribute API annotations. The unpublished part includes an extensible framework for collecting, abstracting, and presenting detailed logs of developer activities.
- GateKeeper - An eclipse-based framework for conducting research on interruptions in software development. Allows policies and interventions to be created and evaluated. Patent application filed by IBM.
- Class analyzer – A framework that analyzes Java libraries, calculates access relations, constructs concept lattices, computes metrics, and stores in database for analysis.
- Archimedes (with others) – An IDE for debugging failing tests on CPUs and other HW at Intel.

## Standardized Tests

- GRE (Graduate Record Examination) general test: 800 (max) Quantitative, 800 (max) Analytical, 75% percentile Verbal
- GRE Computer Science Subject Test: 98% percentile
- TOEFL (Test of English as Foreign Language): 293/300

## Teaching Experience

**Teaching Assistant** **Fall 2001 – Spring 2002**
***Institute for Software Research, School of Computer Science, Carnegie Mellon University***

- TA duties for "Computer Science for Practicing Engineers," new M.S.-level course
- Participated in preparation of course materials and delivered six lectures

**Teaching Assistant** **Spring 2004**
***School of Computer Science, Carnegie Mellon University***

- TA duties for "Fundamental Data Structures and Algorithms," first-year CS majors course

**Teaching Assistant** **Fall 2001 – Spring 2002**
***External Studies Department, Technion – Israel Institute of Technology, Haifa, Israel***

- TA duties for "Object Oriented Programming," a course for engineers transferring to software development, sponsored by the Israeli Ministry of Labor

**Head Teaching Assistant** **Spring 2001 – Spring 2003**
***Department of Computer Science, Technion – Israel Institute of Technology, Haifa, Israel***

- TA duties for "Object Oriented Programming," CS seniors/graduate course on advanced topics in OOP using Smalltalk and C++ as primary languages
- Continued teaching course after graduation from Technion

**Head Teaching Assistant** **Fall 2001**
***Department of Computer Science, Technion – Israel Institute of Technology, Haifa, Israel***

- TA duties for "Introduction to Computer Science M," CS majors section of first-semester course
- Taught recitation sections with >100 students
- Responsible for assignments and exams, teaching assignments for other TAs, and coordination with faculty; main contact for student questions and appeals

**Teaching Assistant** **Spring 2000**
***Department of Computer Science, Technion – Israel Institute of Technology, Haifa, Israel***

- TA duties for "Introduction to Computer Science M," CS majors section of first-semester course on programming in C, algorithms, data structures

## Peer-Reviewed Conference Papers

- "Improving API documentation usability with knowledge pushing", 2009 ACM/IEEE International Conference on Software Engineering (ICSE '09), research papers track, acceptance rate: 12%
- "Reading the documentation of invoked API functions in program comprehension", 2009 IEEE International Conference on Program Comprehension (ICPC '09), research papers track, acceptance rate: 27%
- "Pushing relevant artifact annotations in collaborative software development", 2008 ACM Conference on Computer Supported Cooperative Work (CSCW '08), research notes track, acceptance rate: 16%
- "Notation and representation in collaborative object-oriented design", 2007 ACM Conference on Object Oriented Programming Systems and Applications (OOPSLA '07), research track, acceptance rate: 20%
- "A framework for studying the use of wikis in knowledge work using client-side access data", 2007 ACM International Symposium on Wikis (WikiSym'07), short research papers track, acceptance rate: 51%.
- "Revealing class structure with concept lattices", 2003 IEEE Working Conference on Reverse Engineering (WCRE '03), research papers track, acceptance rate: 46%

## Peer-Reviewed Workshop Papers

- "Supporting distributed software design meetings: What can we learn from collocated meetings?", Workshop on Human and Social Factors of Software Engineering at ICSE '05
- "Eclipse as a platform for research on interruption management in software development", Eclipse Technology Exchange Workshop at OOPSLA '04
- "Towards a standard family of languages for matching patterns over source code" (with Tal Cohen and Sara Porat), IEEE International Conference on Software - Science, Technology & Engineering (SWSTE '03)

## Peer-Reviewed Presentations/Demos/Posters with Published Extended Abstracts

- Presentation: "You probably should be reading this...: Getting people to read your JavaDocs with eMoose", EclipseCon 2009
- Research demonstration: "Pushing API annotations with eMoose", ACM CSCW '08
- Doctoral symposium: "Designing a memory aid to support software developers", ACM OOPSLA '08
- Research demonstration: "eMoose: A memory aid for software developers", ACM OOPSLA '08
- Poster: "eMoose: A memory aid for software developers", ACM OOPSLA '08
- Presentation: "Narrative as a metaphor for knowledge preservation in software engineering", 2008 International Conference on Narrative, International Society for the Study of Narrative
- Doctoral symposium: "Designing a prosthetic memory to support software developers", ACM ICSE '08
- ACM student research competition: "A study of artifact creation and use in collaborative object-oriented software design", ACM OOPSLA '06
- ACM student research competition: "Towards distributed software design meetings: what can we learn from co-located meetings?", ACM OOPSLA '05
- Poster: "Visualizing class interfaces with formal concept analysis", ACM OOPSLA '03