

# ANDREW J. KO, PH.D.

# CURRICULUM VITAE

The Information School  
University of Washington  
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## CURRENT POSITION – SINCE SEPTEMBER 2008

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**Assistant Professor**, Information School  
**Adjunct Assistant Professor**, Department of Computer Science and Engineering  
**University of Washington**, Seattle, WA

**Research Interests:** Human-computer interaction, software engineering, computer-supported collaborative work, user interface software and technology.

## EDUCATION

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**Ph.D. in Human-Computer Interaction**, Carnegie Mellon University 2002 – 2008  
*Human-Computer Interaction Institute*  
*School of Computer Science*  
*Carnegie Mellon University, Pittsburgh PA*  
Advised by Brad A. Myers  
Dissertation: “Asking and Answering Questions about the Causes of Software Behaviors”  
Thesis Committee: Brad Myers (Chair), Bonnie John, Jonathan Aldrich, and Gail Murphy (UBC)

**Honors B.S. in Computer Science and Psychology**, Oregon State University Fall 1998 – Spring 2002  
*Department of Computer Science*  
*Department of Psychology*  
*Oregon State University, Corvallis OR*  
Honors Thesis: “Individual Differences in Programming, Testing, and Debugging in a Statistical End-User Programming Environment.”  
Undergraduate Thesis Committee: Margaret Burnett (Computer Science), Bob Uttil (Psychology)

## PUBLICATIONS

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### JOURNAL ARTICLES

**Ko, A.J.**, Abraham R., Beckwith L., Blackwell A., Burnett M.M., Erwig M., Scaffidi C., Lawrence J., Lieberman H., Myers B.A., Rosson M.B., Rothermel G., Shaw M. and Wiedenbeck S. (in press). The State of the Art in End-User Software Engineering. Accepted for publication in *ACM Computing Surveys*.

**Ko, A. J.** and Myers B.A. (2009). Extracting and Answering Why and Why Not Questions about Java Program Output. *ACM Transactions on Software Engineering and Methodology*, 20(2), April, to appear.

**Ko, A. J.**, Myers B. A., Coblenz, M. J., and Aung, H. H. (2006). An Exploratory Study of How Developers Seek, Relate, and Collect Relevant Information during Software Maintenance Tasks. *IEEE Transactions on Software Engineering*, 33(12), December, 971-987.

**Ko, A. J.** and Myers, B. A. (2005). A Framework and Methodology for Studying the Causes of Software Errors in Programming Systems. *Journal of Visual Languages and Computing*, 16, 1-2, 41-84.

**Ko, A. J.**, Burnett, M. M., Green, T. R. G., Rothermel, K. J., and Cook, C. R. (2002). Using the Cognitive Walkthrough to Improve the Design of a Visual Programming Experiment, *Journal of Visual Languages and Computing*, 13, 517-544.

#### REFEREED CONFERENCE ARTICLES (FULL)<sup>1</sup>

**Ko A.J.** and Chilana P. (2010). How Power Users Help and Hinder Open Bug Reporting. *ACM Conference on Human Factors in Computing Systems (CHI '10)*, Atlanta, GA, to appear (acceptance rate: 24%).

Chilana P., Wobbrock, J., and **Ko A.J.** (2010). Usability Practices in Complex Domains: Implications for Training the Next Generation of Usability Professionals. *ACM Conference on Human Factors in Computing Systems (CHI '10)*, Atlanta, GA, to appear (acceptance rate: 24%).

**Ko A.J.** and Myers B.A. (2009). Attitudes and Self-Efficacy in Young Adults' Computing Autobiographies. *IEEE Symposium on Visual Languages and Human-Centric Computing*, Corvallis, OR, USA, 67-74 (acceptance rate: **25%**).

**Ko A.J.** and Myers B.A. (2009). Finding Causes of Program Output with the Java Whyline. *ACM Conference on Human Factors in Computing Systems (CHI '09)*, Boston, MA, to appear (acceptance rate: **24%**).

Kuleza T., Wong W.K., Stumpf S., Perona S., White R., Burnett M.M., Oberst I., and **Ko. A.J.** (2009). Fixing the Program My Computer Learned: Barriers for End Users, Challenges for the Machine. *International Conference on Intelligent User Interfaces (IUI '09)*, Sanibel Island, FL, USA, February 8-11, 187-196 (acceptance rate: **29%**).

Myers B.A., Park S., Nakano Y., Mueller G., **Ko A.J.** (2008). How Designers Design and Program Interactive Behaviors. *IEEE Symposium on Visual Languages and Human-Centric Computing*, Sept 15-18, Herrsching am Ammersee, Germany, 177-184 (acceptance rate: **29%**).

**Best paper award** **Ko, A.J.** and Myers, B.A. (2008) Debugging Reinvented: Asking and Answering Why and Why Not Questions about Program Behavior. *International Conference on Software Engineering (ICSE)*, Leipzig, Germany, May 10-18, 301-310. (acceptance rate : **15%**)

**Ko, A. J.**, DeLine, R., Venolia, G. (2007). Information Needs in Collocated Software Development Teams. *International Conference on Software Engineering (ICSE)*, Minneapolis, MN, May 20–26, 344-353 (acceptance rate: **14%**).

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<sup>1</sup> Unlike in many academic fields, select conferences in human-computer interaction and software engineering (e.g., CHI, CSCW, UIST, ICSE, FSE, VL/HCC) are premier publication venues intended for archival papers only. These conferences may exceed most HCI and Software Engineering journals in their selectivity, visibility and impact. For conference papers, acceptance rates appear when available.

Cherubini, M., Venolia, G. Deline, R. **Ko, A. J.** (2007). Let's Go to the Whiteboard: How and Why Software Developers Draw Code. *ACM Conference on Human Factors in Computing Systems (CHI)*, San Jose, CA, April 28–May 3, 557–566 (acceptance rate: **36%**).

**Ko, A. J.**, Myers, B.A., Chau, D. H. (2006) A Linguistic Analysis of How People Describe Software Problems in Bug Reports. *Visual Languages and Human-Centric Computing*, Brighton, United Kingdom, September 4–8, 127–134 (acceptance rate: **28%**).

Myers, B. A., Weitzman, D., **Ko, A. J.**, Chau, D. H. Answering Why and Why Not Questions in User Interfaces (2006). *ACM Conference on Human Factors in Computing Systems (CHI)*, Montreal, Canada, April 24–27, 397–406 (acceptance rate: **23%**).

**Ko, A. J.**, Myers, B. A. Barista: An Implementation Framework for Enabling New Tools, Interaction Techniques and Views for Code Editors (2006). *ACM Conference on Human Factors in Computing Systems (CHI)*, Montreal, Canada, April 24–27, 387–396 (acceptance rate: **23%**).

**Ko, A. J.** and Myers, B. A. (2005). Citrus: A Language and Toolkit for Simplifying the Creation of Structured Editors for Code and Data. *ACM Symposium on User Interface Software and Technology (UIST)*, Seattle WA, October 23–26, 3–12. (acceptance rate: **19%**)

**Best  
paper  
award**

Fogarty, J., **Ko, A.J.**, Aung, H.H., Golden, E., Tang, K.P. and Hudson, S.E. (2005). Examining Task Engagement in Sensor-Based Statistical Models of Human Interruptibility. *ACM Conference on Human Factors in Computing Systems (CHI)*, Portland OR, April 2–7, 331–340. (acceptance rate: **25%**)

**Best  
paper  
award**

**Ko, A. J.**, Aung, H., and Myers, B. A. (2005). Eliciting Design Requirements for Maintenance-Oriented IDEs: A Detailed Study of Corrective and Perfective Maintenance Tasks. *International Conference on Software Engineering (ICSE)*, St. Louis, MI, May 15–21, 126–135. (acceptance rate: **14%**)

**Ko, A. J.**, Myers, B. A., and Aung, H. (2004). Six Learning Barriers in End-User Programming Systems. *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, Rome, Italy, September 26–29, 199–206. (acceptance rate: **32%**)

**Ko, A. J.** and Myers, B. A. (2004). Designing the Whyline: A Debugging Interface for Asking Questions About Program Failures. *ACM Conference on Human Factors in Computing Systems (CHI)*, Vienna, Austria, April 24–29, 151–158. (acceptance rate: **16%**)

**Best  
paper  
award**

**Ko, A. J.** and Myers, B. A. (2003). Development and Evaluation of a Model of Programming Errors. *IEEE Symposia on Human-Centric Computing Languages and Environments (VL/HCC)*, Auckland, New Zealand, October 28th–31st, 7–14. (acceptance rate: **33%**)

**Ko, A. J.** and Uttl, B. (2003). Individual Differences in Program Comprehension Strategies in Unfamiliar Environments. *IEEE International Workshop on Program Comprehension (IWPC)*, Portland, OR, May 10th–11th, 175–184. (acceptance rate: **40%**)

Burnett, M. M., Ren, B., **Ko, A. J.** (2001). Visually Testing Recursive Programs in Spreadsheet Languages. *IEEE Symposia on Human-Centric Computing Languages and Environments*, Stresa, Italy, September, 288–295. (acceptance rate: **30%**)

Green, T. R. G., Burnett, M. M., **Ko, A. J.**, Rothermel, K. J., Cook, C. R., Schonfeld, J. (2000). Using the Cognitive Walkthrough to Improve the Design of a Visual Programming Experiment. *IEEE Symposium on Visual Languages (VL)*, Seattle, WA, September, 172–179. (acceptance rate: **32%**)

#### **REFEREED SHORT CONFERENCE PAPERS (NOTES)**

Myers B.A. and **Ko A.J.** (2009). The Past, Present and Future of Programming in HCI. *Human-Computer Interaction Consortium (HCIC '09)*, Winter Park, CO. February 4th - 8th.

Park S., Myers B.A., **Ko A.J.** (2008). Designers' Natural Descriptions of Interactive Behaviors. *IEEE Symposium on Visual Languages and Human-Centric Computing*, Sept 15-18, Herrsching am Ammersee, Germany, 185-188 (acceptance rate: **29%**).

Scaffidi, C., **Ko, A.**, Myers, B. A., Shaw, M. (2006). Dimensions Characterizing Programming Feature Usage by Information Workers. *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, Brighton, United Kingdom, September 4–8, 59–62.

**Ko. A. J.** (2006) Debugging by Asking Questions About Program Output. *International Conference of Software Engineering (ICSE)*, Shanghai, China, May 20–28th, 989–992.

Myers, B. A., **Ko, A. J.**, Burnett, M. M. (2006). Invited Research Overview: End-User Programming. Extended Abstracts, *ACM Conference on Human Factors in Computing (CHI)*, Montreal, Canada, April 22–27, 75–80.

Coblentz, M. J., **Ko, A. J.**, and Myers. B. A. (2005). Using Objects of Measurement to Detect Spreadsheet Errors. *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, Dallas, Texas, September 23–26, 314–316.

**Ko, A. J.**, Aung, H., and Myers, B. A. (2005). Design Requirements for More Flexible Structured Editors from a Study of Programmers' Text Editing. *ACM Conference on Human Factors in Computing Systems (CHI)*, Portland OR, April 2–7, 1557–1560.

**Ko, A. J.** (2004). Designing a Flexible and Supportive Direct-Manipulation Programming Environment. *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, Rome, Italy, September 26–29, 277–278.

**Ko, A. J.** (2003). Preserving Non-Programmers Motivation with Error-Prevention and Debugging Support Tools. *IEEE Symposia Human-Centric Computing Languages and Environments*, Auckland, New Zealand, October 28th–31st, 271-272.

**Ko, A. J.** (2003). A Contextual Inquiry of Expert Programmers in an Event-Based Programming Environment. *ACM Conference on Human Factors in Computing (CHI)*, Fort Lauderdale, FL, April 8th-10th, 1036–1037.

## REFEREED WORKSHOP PAPERS

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Chilana, P.K., Palmer, C., and **Ko, A.J.** (2009) Comparing Bioinformatics Software Development by Computer Scientists and Biologists: An Exploratory Study. *Workshop on Software Engineering for Computational Science and Engineering*, at *International Conference on Software Engineering*, Vancouver, BC, May, 2009.

Chilana, P.K., **Ko, A.J.**, and Wobbrock, J.O. (2009) Designing Software for Unfamiliar Domains. Workshop on Cooperative and Human Aspects of Software Engineering (CHASE), *International Conference on Software Engineering*, Vancouver, BC, May, 2009.

**Ko, A. J.** and Myers, B.A. (2008). Source-Level Debugging with the Whyline. *Cooperative and Human Aspects of Software Engineering*, 69-72.

Myers, B. A., Burnett, M. M., Wiedenbeck, S., **Ko, A. J.** (2007). End User Software Engineering: CHI 2007 Special Interest Group Meeting, *ACM Conference on Human Factors in Computing Systems*, San Jose, CA, April 28–May 3, 2125–2128.

**Ko, A. J.** (2006). The Role of Science in Supporting Software Development. Workshop on Supporting the Social Side of Large-Scale Software Development, at the *2006 ACM Conference on Computer Supported Cooperative Work*, Banff, Alberta, Canada.

Coblentz, M. J., **Ko, A. J.**, Myers, B. A. (2006) JASPER: An Eclipse Plug-In to Facilitate Software Maintenance Tasks. *Proceedings of the 2006 OOPSLA Workshop on Eclipse Technology eXchange*, October 22-23, Portland, OR, 65–69.

**Ko, A. J.**, Myers, B. A., Coblentz, M., and Stylos, J. (2006). End-User Programming Productivity Tools. *2nd Workshop on End-User Software Engineering (WEUSE)*, at CHI '06, Vienna, Austria.

**Ko, A. J.** and Myers, B. A. (2005). Human Factors Affecting Dependability in End-User Programming. *1st Workshop on End-User Software Engineering (WEUSE)*, at ICSE '05, St. Louis, MO, 1–4.

Myers, B. A., **Ko, A. J.** (2005). More Natural and Open User Interface Tools. Workshop on the Future of User Interface Design Tools, *ACM Conference on Human Factors in Computing Systems*.

Myers, B. and **Ko, A. J.** (2003) Studying Development and Debugging To Help Create a Better Programming Environment. *Workshop on Perspectives in End User Development*, *ACM Conference on Human Factors in Computing Systems*, Fort Lauderdale, FL, April 6th, 65–68.

## REFEREED INVITED ARTICLES

Wobbrock, J.O., **Ko, A.J.** and Kientz, J.A. (2009) New to the movement: Reflections on the future of Information Schools from inspired junior faculty. *Interactions* 16 (5). To appear.

Myers, B. A., Pane, J. F. and **Ko, A. J.** (2004). Natural Programming Languages and Environments. *Communications of the ACM*, special issue on End-User Development, 47(9), September, 47-52.

## REFEREED PUBLISHED VIDEOS

Myers B.A., Weitzman, D.A., **Ko, A.J.**, and Chau D.H. (2006). The Crystal Framework and Editor for Answering Why and Why Not Questions. Video Figure. *ACM Conference on Human Factors in Computing (CHI)*.

**Ko, A.J.** and Myers, B.A. (2005). The Citrus language and user interface toolkit. Video figure. *ACM Symposium on User Interface Software and Technology (UIST)*.

## TECHNICAL REPORTS

Scaffidi, C. **Ko, A. J.**, Myers, B. A., and Shaw, M. (2005). Identifying Types of End Users: Hints from an Informal Survey. *Carnegie Mellon University ISRI Technical Report, no. CMU-HCII-05-101 and Human Computer Interaction Institute Technical Report CMU-ISRI-05-110*. April.

## THESES

**Ko, A.J.** (2008). Asking and Answering Questions about the Causes of Software Behaviors, *Human-Computer Interaction Institute Technical Report CMU-CS-08-122*, May.

**Ko, A. J.** (2002). Individual Differences in Programming, Testing, and Debugging Strategies in a Statistical End-User Programming Environment. *Oregon State University Honors College, Undergrad Thesis*, May.

## GRANTS AND GIFTS

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National Science Foundation. Grant CCF-0952733 (**\$592,456**). *Enabling and Exploiting Evidence-Based Bug Triage*. (2010–present). Ko, A.J. (PI).

National Science Foundation. Grant IIS-0929989 (**\$14,880**) *Democratizing Access to Computational Tools*. (2009). Ko, A.J. (PI).

## BEST PAPER AWARDS

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### **Distinguished Paper Award, International Conference on Software Engineering (ICSE '08)**

Ko & Myers, “Debugging Reinvented: Asking and Answering Why and Why Not Questions about Program Behavior” (top 1% of submissions)

### **Best Paper Award, ACM SIGCHI Conference on Human Factors in Computing Systems (CHI '05)**

Fogarty, Ko, Aung, Golden, Tang, & Hudson, “Examining Task Engagement in Sensor-Based Statistical Models of Human Interruptibility” (top 1% of submissions)

### **Distinguished Paper Award, International Conference on Software Engineering (ICSE '05)**

Ko, Aung, & Myers, “Eliciting Design Requirements for Maintenance-Oriented IDEs: A Detailed Study of Corrective and Perfective Maintenance Tasks” (top 1% of submissions)

### **Best Paper Award, IEEE Symposia on Human-Centric Computing (VL/HCC '03)**

Development and Evaluation of a Model of Programming Errors (top 5% of submissions)

## OTHER HONORS AND AWARDS

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<b>National Science Foundation CAREER award</b>	2010
<b>National Science Foundation</b> Graduate Research Fellowship	2004
<b>National Defense and Science Engineering</b> Graduate Fellowship	2004
<b>National Science Foundation</b> Graduate Research Fellowship (Honorable Mention)	2003
<b>Computing Research Association</b> Outstanding Undergraduate (Honorable Mention)	2001
Undergraduate Research Grant, URISC Program, <i>Oregon State University</i>	2001
Waldo Cummings <b>Outstanding Student Award</b> , 1 of 10 in class	2000
ACM Student Chapter Excellence Award for School Service, as president	2000
Waldo Cummings <b>Outstanding Student Award</b> , 1 of 5 in class	1999
Oregon State University Achievement Award, 4-year scholarship	1998

## PRESS

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Anne Watzman, **CMU Press Release**, "Ko, Aung and Myers Win Best Paper Award at International Conference on Software Engineering." May 23<sup>rd</sup>, 2005.

David Hart, **NSF Press Release NSF PR 04-065**, "Researchers to Help Exterminate Bugs in Spreadsheets, Web Applications." May 5<sup>th</sup>, 2004.

Alan Cohen, **PC Magazine**, "The Ten Biggest Problems in Computing and How We'll Solve Them," August 2005.

Mike Crissey, **Associated Press**, "Researchers Aim to Make Debugging Simpler." Appeared online at CNN, PC World, PC Magazine, and hundreds of print and online newspapers, July 2004.

## PATENTS

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Ko, A. J. and Myers, B.A. (2004). **A Debugging Interface**. U.S. Patent Application #60/617,314, filed October 8, 2004.

## SPEAKING

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### KEYNOTES

CHOOSE Forum, Bern, Switzerland November 23<sup>rd</sup>, 2009  
"Where HCI and Software Engineering Meet"

**iEDGE Conference**, Seattle, Washington April 2nd, 2009  
"Where HCI and Software Engineering Meet"

## INVITED TALKS

<b>IIT Mumbai</b> , Mumbai India "Asking and Answering Questions about the Causes of Software Behavior"	February 27 <sup>th</sup> , 2009
<b>India Software Engineering Conference</b> , Pune, India "Asking and Answering Questions about the Causes of Software Behavior"	February 24 <sup>th</sup> , 2009
<b>Intel Research Seattle</b> , Seattle, Washington "Asking and Answering Questions about the Causes of Software Behavior"	January 14 <sup>th</sup> , 2009
<b>Accenture</b> , Chicago, Illinois "Asking and Answering Questions about the Causes of Software Behavior"	May 30 <sup>th</sup> , 2008
<b>SRI International</b> , Menlo Park, California "Asking and Answering Questions about the Causes of Software Behavior"	January 31 <sup>st</sup> , 2008
<b>Washington University in St. Louis</b> , Computer Science Department, St. Louis, MO "Asking and Answering Questions about the Causes of Software Behavior"	25 <sup>th</sup> , 2008
<b>IBM T.J. Watson Research Center</b> , Hawthorne, New York "Asking and Answering Questions about the Causes of Software Behavior"	November 30 <sup>th</sup> , 2006
<b>Oregon State University</b> , Corvallis, Oregon "Information Needs in Software Development Work"	October 24 <sup>th</sup> , 2006
<b>Visual Studio User Experience Group</b> , Redmond, Washington "Information Needs in Software Development Work"	August 25 <sup>th</sup> , 2006
<b>Microsoft Research</b> , Redmond, Washington "Information Needs in Software Development Work"	August 22 <sup>th</sup> , 2006
<b>University of British Columbia</b> , Computer Science Department, Vancouver, BC "Human-Centered Approaches to Software Engineering Research"	July 16 <sup>th</sup> , 2006

## INTERNAL TALKS

**Design:Use:Build (DUB) Group**, University of Washington, 2008

## SERVICE

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### DEPARTMENTAL SERVICE

#### UNIVERSITY OF WASHINGTON

Informatics Committee, 2009-2010

Ph.D. Admissions Committee: 2008-2009

Recognition and Nomination Committee: 2008-2009

## CARNEGIE MELLON UNIVERSITY

**Ombudsperson, Human-Computer Interaction Institute, Carnegie Mellon University** 2006 – 2007  
Solicited, managed, and conveyed anonymous student complaints and concerns to the appropriate leadership in the department, and communicated feedback to the students.

## OREGON STATE UNIVERSITY

**Head of Computer Science Tutoring Program** 2000  
Designed and led volunteer-based tutoring program for computer science undergraduates.

**President of ACM Chapter** 1999 – 2001  
Coordinated a campus-wide tutoring program for beginning computer science students, planned and executed the 1st and 2nd annual OSU Software Engineering Contest, and formed special interest groups on robotics, advanced web design, and parallel computing.

## PROFESSIONAL

**Co-Editor of IEEE Software**, Special Issue on End-User Software Engineering

## PROGRAM COMMITTEES

ACM Conference on Human Factors in Computing (CHI) 2010  
IEEE Visual Languages and Human-Centric Computing (VL/HCC) 2009  
IEEE International Conference on Program Comprehension (ICPC) (2009)  
Intelligent User Interfaces (IUI) 2009  
SUITE Workshop 2009  
CHASE Workshop 2009  
RSSE Workshop 2009

## PEER REVIEWING

ACM CHI	2005, 2006, 2007, 2008, 2009, 2010
IEEE VL/HCC	2004, 2005, 2006, 2007, 2009, 2010
ACM UIST	2005, 2006, 2007, 2009
International Journal of Human-Computer Studies (IJHCS)	2006, 2007, 2008
Journal of Visual Languages and Computing (JVLC)	2004, 2005
Graphics Interface (GI)	2006
ACM Transactions on Software Engineering and Methodology (TOSEM)	2009
IEEE Transactions on Software Engineering (TSE)	2009
Advances in Human-Computer Interaction (AHCI)	2008

## DOCTORAL CONSORTIA

Chair of IEEE Symposium on Visual Languages and Human-Centric Computing	2009, 2010
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## CONFERENCE CHAIRING

IEEE International Conference on Program Comprehension, Vancouver, BC, Canada	2009
ACM Conference on Human Factors in Computing, Boston, MA, USA	2009

## MEMBERSHIPS

Association for Computing Machinery (ACM)

## TEACHING

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### UNIVERSITY OF WASHINGTON

INSC 541 Human-Computer Interaction and Design Fundamentals (Winter 2010)  
INFO 440 User-Centered Design (Autumn 2008)

#### Guest Lecture

Course: CSE 510: HCI Research, "Software Design" *January 2009*

### CARNEGIE MELLON UNIVERSITY

**Guest Lecture**, *Carnegie Mellon University, Pittsburgh, PA* *Fall 2006*

Course: *HCI for Technology Executives (17-770)*, taught by Brad Myers

Delivered lecture on application design in Visual Basic.NET.

**Teaching Assistant**, *Carnegie Mellon University, Pittsburgh, PA* *Fall 2006*

Course: *HCI for Technology Executives (17-770)*, taught by Brad Myers

Developed and graded assignments, gave lectures on Visual Basic.NET, held weekly office hours.

**Teaching Assistant**, *Carnegie Mellon University, Pittsburgh, PA* *Fall 2004*

Course: *Introduction to HCI Methods (15-610)*, taught by Brad Myers

Guided the development of grading criteria, held weekly office hours, proctored three exams.

**Teaching Assistant, Carnegie Mellon University, Pittsburgh, PA** *Spring 2004*  
*Course: Programming Usable Interfaces (15-630), taught by Bonnie John and Chris Neuwirth*

Led two lectures on programming environments and usability, developed and evaluated four assignments, designed test questions, held office hours, and led tutorials on Flash and VB.NET.

## **OREGON STATE UNIVERSITY**

**Instructor, Oregon State University, Corvallis, OR** *Fall 2000*  
*Course: The Polygon (CS 199)*

Designed course materials, tests, and assignments; presented ten lectures on graphics rendering algorithms. First of several undergraduate-taught courses sponsored by the student chapter of the ACM.

## **STUDENTS SUPERVISION**

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### **PH.D. STUDENTS**

#### **UNIVERSITY OF WASHINGTON**

<b>Parmit Chilana</b> (iSchool)	<i>Fall 2008 –</i>
<b>Michael Lee</b> (iSchool)	<i>Fall 2009 –</i>
<b>Casey Hickerson</b> (iSchool)	<i>Fall 2009 –</i>

### **OTHER STUDENTS**

#### **UNIVERSITY OF WASHINGTON**

<b>Patrick Davis</b> (iSchool), independent study on Buxton's Sketching User Experience	<i>Winter 2009</i>
<b>Ray Barnhart</b> (iSchool), independent study on video game review site design	<i>Winter 2009</i>
<b>Benjamin Berlin</b> (iSchool), independent study on video game review site design	<i>Winter 2009</i>
<b>Philip Phung</b> (iSchool), independent study on video game review site design	<i>Winter 2009</i>
<b>Braden Pellet</b> (iSchool, Ph.D.), research practicum	<i>Winter 2009</i>
<b>Hasmik Kalantarian</b> (iSchool), internship mentoring	<i>Fall 2008</i>
<b>Craig Kochis</b> (CSE), independent study	<i>Spring 2009</i>
<b>Charles Ko</b> (iSchool), capstone advisor	<i>Spring 2009</i>
<b>Don Bushell</b> (iSchool), capstone advisor	<i>Spring 2009</i>
<b>Peggy Chau</b> (iSchool), internship mentoring	<i>Spring 2009</i>

#### **CARNEGIE MELLON UNIVERSITY**

**Sun Young Park, Research Staff, with Brad Myers** *Summer 2007 – present*  
Supervised Sun Young's contextual inquiries, surveys, and lab experiment investigating interaction designers' processes and practices, in collaboration with Adobe, Inc.

**Yoko Nakano, Research Staff, with Brad Myers** *Summer 2007 – present*  
Supervised Yoko's contextual inquiries and surveys of interaction designers' processes and practices, in collaboration with Adobe, Inc.

**Gregory Mueller**, *Research Staff, with Brad Myers* *Summer 2007 – present*  
Supervised Greg’s contextual inquiries and surveys of interaction designers’ processes and practices, in collaboration with Adobe, Inc.

**Michael Coblenz**, *Undergraduate and Masters Theses, with Brad Myers* *Fall 2004 – Summer 2006*  
Supervised Michael’s undergraduate thesis, which focused on the design of a new spreadsheet language for propagating user-supplied labels on data to help users notice errors. Also supervised his masters thesis, for which he developed a workspace to helping developers manage task-relevant information during software maintenance tasks, Inc.

**Duen Horng Chau**, *Research Staff, with Brad Myers* *Fall 2005 – Summer 2007*  
Supervised the empirical evaluation of a word processor that supports why and why not questions, and the acquisition and processing of over a quarter million open source bug reports for a linguistic analysis of their content and structure. Also supervised the execution of several empirical studies of software artifacts.

**David Weitzman**, *Undergraduate Independent Study, with Brad Myers* *Summer 2005*  
Supervised David’s implementation of a prototype word processor that allows users to ask why and why not questions about the user’s document and the application’s state.

## **PROFESSIONAL EXPERIENCE**

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**Graduate Research Assistant**, *Carnegie Mellon University, Pittsburgh, PA* *Fall 2002 – May 2008*  
Advisor: Brad A. Myers  
Focusing on several aspects of software development productivity, including debugging tools that answer programmers’ questions, highly visual and interactive code editors, new programming languages, studies of programmers’ interruptibility, workspaces that help programmers understand a program’s behavior, and end-user programming.

**Research Intern**, *Microsoft Research, Redmond, WA* *Summer 2006*  
Mentor: Rob DeLine  
Investigated the information needs of software development work across 17 product groups, studying how information was acquired and in what circumstances it was not. Used a “shadowing” methodology, in which I observed particular aspects of developers’ work.

**Research Assistant**, *Oregon State University, Corvallis, OR* *Summer 1999 – Fall 2001*  
Advisor: Margaret M. Burnett  
Helped to develop and maintain a 120,000-line research language prototype written in Lisp and Java, and helped design and execute empirical studies of novel programming tools for spreadsheets. Additional research responsibilities included the authoring and co-authoring of academic papers.

**System Administrator**, *Oregon State University, Corvallis, OR* *Fall 1999 – Spring 2000*  
Maintained local network and computer lab machines for general use by student community.