

Summary

- Interested in opportunities near Boulder, Colorado.
- Experience with user-centered iterative design including contextual inquiry, heuristic evaluation, wizard of Oz and user studies.
- Able to figure out what technologies are necessary to complete a job and quickly learn new skills required.
- Effective presentation skills including conveying technical material.
- Experience leading and mentoring a team of undergraduate researchers.

Education

University of California at Berkeley
PhD Candidate
Computer Science,
emphasis in Human Computer Interaction
To Be Conferred: December 2008

University of California at Berkeley
Master of Science
Computer Science,
emphasis in Human Computer Interaction
December 2005
GPA: 3.83 / 4.0

Carnegie Mellon University
Bachelor of Science
Major: Computer Science
Minor: Engineering Studies
May 2002
GPA: 3.51 / 4.0

Industry Experience

Graduate Intern, **Intel Research** – Santa Clara, CA (Fall 2007)
Dynamically Composable Computing Speech Interface

Mentor: Barbara Rosario

- Trained a language model for use with the Nuance speech recognizer on existing transcripts of sample commands.
- Tested four standard classification algorithms to label each command with the action (display, clipboard, files) and direction (push, pull) and one tagging algorithm to tag the name of each device using the toolkit Mallet.
- Integrated open source audio libraries to pass audio directly from the microphone to the Nuance speech recognizer.

Graduate Intern, **Fuji Xerox Palo Alto Laboratory** – Palo Alto, CA (Summer 2004)
Video Database 3D Gestural Interface

Mentor: John Adcock

- Designed and implemented a gestural interface for a video database visualization tool using data gloves and 3D-Brids as input devices.

Software Engineer Intern, **Microsoft** – Redmond, WA (Summer 2001)
Register Name Insensitive Assembly Difference Tool

Mentor: Bruce Forstal

- Designed and implemented a filter on a diff tool to allow compiler developers to filter out benign register name differences when comparing generated assembly code before and after making a change to the compiler.

Research Experience

Graduate Student Researcher, **University of California – Berkeley**, CA (Spring 2006-present)
Natural Speech Interface for Workspace Lighting Control

Advisor: John Canny

- Design and deploy a speech interface for workspace lighting control in a lab with eighty individually controllable overhead lights and twenty regular occupants that allows occupants to train the system on their personalized lighting scenes and commands.
- Implement a web-based GUI to allow occupants to configure lighting scenes manually and record training data.
- Advised two undergraduate researchers who implemented the first iteration of the web-based graphical interface.

Graduate Student Researcher, **University of California – Berkeley**, CA (Spring 2003-Fall 2005)
Active Capture: System Direction of Human Action

Advisor: Marc Davis

- Designed an automated photo ID photo booth using an existing code base for developing system that direct human action.
- Developed a visual language to concisely represent the timing, the requirements of user (i.e. facing the camera, smiling) and voice prompts. The visual language helped the members of the team work more effectively together.
- Lead and coordinate an interdisciplinary team of three undergraduate researchers on the project.

Skills

Programming Languages: C#, Java, C++, C, Action Script 3, Python, Matlab, ML, Scheme, HTML, CSS, JavaScript, XML
Tools: IIS, Web Services, Flex Builder, Subversion, CVS, Eclipse, Visual Studio, Google Web Toolkit (some)
HCI: Contextual Inquiry, Heuristic Evaluation, Wizard-of-Oz, User Studies, User Centered Iterative Design
Public Speaking: Technical Conference Presentations to 50 people, Computer Science Lectures to 60 students

Honors

National Science Foundation Graduate Fellowship (Fall 2004 - Spring 2007)
Computing Research Association Outstanding Undergraduate Award Honorable Mention (2002)
Microsoft Minority Full Tuition Scholarship (Fall 2001)

Publications

- Ana Ramírez Chang** and John Canny, "Illuminac: Simultaneous Naming and Configuration in Workspace Lighting Control." In Proceedings of *Intelligent User Interfaces (IUI)*, 2009. (To Appear)
- Ana Ramírez Chang** and John Canny, "Illuminac: User-Extensible Spoken Language Interface for Workspace Lighting Configuration Control." In Proceedings of *Conference on Human Factors in Computing Systems (CHI)*, 2009. (In Submission)
- Ana Ramírez Chang**, "Illuminac: Simultaneous Naming and Configuration in Workspace Lighting Control." In Proceedings of *UbiWORK Workshop at the ACM International Conference on Ubiquitous Computing (UbiComp)*, 2008.
- Ana Ramírez Chang** and Marc Davis, "Active Capture Design Case Study: SIMS Faces." In Proceedings of *Conference on Designing for User eXperience (DUX)*, 2005.
- Ana Ramírez Chang** and Marc Davis, "Designing Systems that Direct Human Action." In Extended Abstract Proceedings of *ACM Conference on Human Factors in Computing Systems (CHI)*, 2005.
- Ana Ramírez Chang** and Marc Davis, "Active Capture and Folk Computing." In Proceedings of *IEEE International Conference on Multimedia and Expo (ICME 2004)*, 2004.
- Jeffrey Heer, Nathaniel S. Good, **Ana Ramírez Chang**, Marc Davis, and Jennifer Mankoff, "Presiding Over Accidents: System Direction of Human Action." In Proceedings of *Conference on Human Factors in Computing Systems (CHI)*, 2004.