

# CATHERINE “CATIE” BAKER

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## RESEARCH GOALS

Currently I am focusing my research on the accessibility of the programming for developers who are blind. I am looking at the accessibility of development tools, education, and resources.

## EDUCATION

- 2012-Present **University of Washington**, Seattle, Washington  
Computer Science & Engineering  
Masters, Fall 2014  
Ph.D. expected June 2017  
Cumulative GPA: 3.90/4.0
- 2008-2012 **DePauw University**, Greencastle, Indiana  
Bachelor of Arts, Summa Cum Laude, May 2012  
Science Research Fellows Honor Program  
Cumulative GPA: 3.97/4.0;  
Computer Science GPA: 4.0/4.0, Mathematics GPA: 3.92/4.0

## PUBLICATIONS

- 2016 **Catherine M. Baker**, Lauren R. Milne, Ryan Drapeau, Jeffrey Scofield, Cynthia L. Bennett, and Richard E. Ladner. 2016. Tactile Graphics with a Voice. *ACM Transactions on Accessible Computing (TACCESS)* 8, 1, Article 3
- 2015 **Catherine M. Baker**, Lauren R. Milne, and Richard E. Ladner. 2015. StructJumper: A Tool to Help Blind Programmers Navigate and Understand the Structure of Code. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 3043-3052.
-  2014 **Catherine M. Baker**, Lauren R. Milne, Jeffrey Scofield, Cynthia L. Bennett, and Richard E. Ladner. 2014. Tactile graphics with a voice: using QR codes to access text in tactile graphics. In *Proceedings of the 16th international ACM SIGACCESS conference on Computers & accessibility (ASSETS '14)*. ACM, New York, NY, USA, 75-82.

## POSTERS AND DEMOS:

- 2014 **Catherine M. Baker**, Lauren R. Milne, Jeffrey Scofield, Cynthia L. Bennett, and Richard E. Ladner. 2014. Tactile graphics with a voice demonstration. In *Proceedings of the 16th international ACM SIGACCESS conference on Computers & accessibility (ASSETS '14)*. ACM, New York, NY, USA, 321-322.

## INVITED TALKS & PANELS

- 2016 Educational Experiences of Blind Programmers – Google Accessibility Week  
Increasing Access to STEM for Blind Students – Grinnell College  
Women in STEM Panel at Big Dream Showing – Edmonds Community College
- 2015 Tactile Graphics with a Voice – Pacific Northwest AER Conference
- 2012 Projects in Mobile Accessibility – Summer Academy for Advancing Deaf and Hard of Hearing in Computing

## ACADEMIC HONORS & HONOR SOCIETIES

- 2016 ASSETS Doctoral Consortium  
Grace Hopper Conference Scholarship  
New Educators Workshop Travel Grant
- 2014 Best Student Paper – ASSETS 2014
- 2012 National Science Foundation Graduate Research Fellowship  
UW Department of Computer Science Fellowship Recipient  
NCAA Postgraduate Fellowship Recipient  
Robert J. Thomas Outstanding Senior for the Computer Science Department
- 2011 Barry M. Goldwater Scholarship  
Phi Beta Kappa Honor Society Initiate  
Computer Science Department's Wylie Condit Science Scholarship Recipient  
Inaugural Member of the DePauw University Computer Science Honor Society  
Mortar Board Member  
Member of Chi Alpha Sigma

## TEACHING EXPERIENCE

### *UNIVERSITY OF WASHINGTON*

- 2016 Teaching Assistant for CSE 440 – Human Computer Interaction
  - Led two sections which were guided design critiques, graded, held office hours
- 2015 Instructor for CSE 373 – Data Structures and Algorithm
  - Lectured, Organized TAs, held office hours and graded
- 2015 Tutor for CSE 332 – Data Abstractions, CSE 143 – Computer Programming II
  - Worked with a small group of students to review concepts from class
- 2014, 2015 Teaching Assistant for CSE 333 – Systems Programming
  - Lead some of the sections, held office hours, and graded

### *DEPAUW UNIVERSITY*

- 2009 - 2012 Computer Science 121 Lab & Project Tutor
  - Tutor for the weekly labs of Computer Science 121 as well as for the projects
  - Appointed Head Tutor my junior year
- 2010 –2011 Computer Science 121 Teaching Assistant
  - Attended the class and helped students with in-class work

## PROFESSIONAL EXPERIENCE

- Present **Human Centered Design & Engineering Outreach Research Assistant**
  - Lead a course which prepares students to lead outreach activities (UCD Charettes) in local middle and high schools
  - Improve resources for future facilitators of UCD Charettes
- 2016 **Microsoft, Accessibility Intern**
  - Worked with teams on improving accessibility of their products
  - Provided guides for integrating accessibility into current process
- 2012 **National Institute of Standards and Technology, SURF Program**
  - Summer research project on graph toughness
- 2011 **National Institute of Standards and Technology, SURF Program**
  - Summer research project on the optimization of circuit design

## LEADERSHIP EXPERIENCE & SERVICE

- 2016-2017 HCDE BS Program Committee
  - Committee responsible for curriculum recommendations and admissions for the HCDE Bachelors program

- 2015-2017 Mentoring Coordinator - UW CSE
- Coordinates the mentor program for new graduate students in the department
- 2015-2016 Non-standard Visit Days Coordinator
- Coordinate the visits of prospective students that come outside the standard visit dates
- Grad Student Seminar Coordinator - UW CSE
- Organize lightning talks and panels on topics of interest
- VP Finance - Seattle Area Delta Gamma Alumnae
- Create and maintain the budget for the organization
- 2014-2016 CHI Reviewer
- HCI Visit Days Coordinator – UW CSE
- 2014-2015
- Helped coordinate prospective HCI student scheduling & HCI group activity
- VP Lectureship for Seattle Area Delta Gamma Alumnae
- Helped organize the Delta Gamma Lectureship in Values and Ethics
- Mentor – UW CSE
- Act as a resource for a group of new grads
- 2014 Empowering Blind Students in Science & Engineering (EBSSE) Volunteer
- Volunteered guiding participants between events and photographed the event
- 2013 New Grad Orientation Leader - UW CSE
- Led and organized the orientation for the new graduate students
- TGIF Coordinator - UW CSE
- Coordinating weekly social event for grad students, faculty, and staff
- Saturday Computing Experience for Deaf and Hard of Hearing HS Students
- Taught Processing to Deaf and Hard of Hearing high school students in a one-on-one environment
- 2011-2012 Association of Computing Machinery Committee on Women DePauw Chapter Chair
- Help plan and organize meetings geared at getting women interested in CS
- STARS – DePauw University
- Outreach program aimed at K-12 girls and women in computer science 121
- Women's Swim Team Captain – DePauw University
- Provide team leadership and support to swim team members
  - Organized a meet raising money for cancer research
- 2011 Chapter President for Delta Gamma – DePauw University
- Provide leadership and organization oversight to the members of Delta Gamma

## ATHLETIC HONORS

- 2008-2012 Three time All-American, Division III in Swimming (100 breast - 2010, 2011, 2012); Four time Honorable Mention All-American, Division III in Swimming (200 breast - 2010, 2011, 2012; 200 IM – 2010)
- Amy Hasbrook Award - Given to the DePauw senior female student-athlete that exemplifies effort and excellence in athletics, academics, leadership, integrity, dedication to the team, campus involvement, and community service
- Capital One/CoSIDA Academic All-American Women's At-Large Team member: 2012, 2011 - First Team, College Division; 2010 – Second Team, College Division
- SCAC Swimmer of the Year (2010, 2011) & SCAC Swimmer of the Meet (2010)
- 10 time SCAC Champion, 1 individual SCAC meet record, 2 individual SCAC Open records
- 2 individual school records, 1 relay school record, and school record in the most letter points earned in a career & single season
- 4 time Qualifier for NCAA Division III National Swim Meet and College Swim Coaches Association Scholar All-American