

# Anne Spencer Ross

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## EDUCATION:

**University of Washington**, Seattle, WA

9/2015-present

Ph.D. Student

Computer Science and Engineering

Human-Computer Interaction and Accessibility Focus

**Colorado State University**, Fort Collins, CO

8/2012 - 12/2014

B.S. in Computer Science, Magna Cum Laude with Honors

Thesis: *Examination of Dedicated Research Assistant (DESA) System*

*Usability and Effectiveness*

Major GPA: 4.0 / 4.0

Overall GPA: 3.99 / 4.0

**University of California Santa Cruz**, Santa Cruz, CA

9/2010 - 6/2012

Major: Film Production

Minor: Statistics

GPA: 3.95 / 4.0

**University of Hawaii at Manoa**, Honolulu, HI

8/2011 - 12/2011

Semester "Almost" Abroad Program

Major: Mathematics

GPA: 4.0 / 4.0

## RESEARCH EXPERIENCE:

**Graduate Research Assistant**

9/2015-present

Interactive Systems Lab

PI: James Fogarty, Ph.D.

*Assessing and Enhancing Mobile Application Accessibility through  
Automated Methods and Community-Driven Design*

- Designed and ran interviews to inform and test our app enhancements

**Undergraduate Research Assistant**

8/2013 – 12/2014

Artificial Intelligence and Human Computer Interaction Laboratories, CSU

PIs: Adele Howe, Ph.D. and Jaime Ruiz, Ph.D.

*Dedicated Search Assistant*

- Designed and implemented the interface for a personalized, persistent Web search assistant.
- Designed and conducted usability studies to assess design and inform improvements to the system

*Activity and User Recognition Using Mobile Phone Accelerometer and Gyroscope*

- Investigated the ability to use mobile phone accelerometers and gyroscopes to identify user activity and user identity
- Implemented the Android application to collect data
- Designed, conducted, and analyzed the results of a study to collect accelerometer and gyroscope data from participants performing activities

**Naval Research Enterprise Internship Program**

6/2013 – 8/2013

Naval Postgraduate School, Monterey, California

PI: Craig Martell, Ph.D.

*Using Bayesian Statistics on Twitter Feeds to Classify Twitter Users*

- Investigated use of Naïve Bayes Classifier machine learning technique to classify characteristics of Twitter users based on text of their tweets

**REU Site: Interdisciplinary Program in High Performance Computing**

6/2012 – 8/2012

University of Maryland, Baltimore County, Baltimore, Maryland

PIs: Nagaraj Neerchal, Ph.D. and Matthias Gobbert, Ph.D.

*Water Quality Monitoring of Maryland's Tidal Waterways*

- Analyzed data provided by Maryland's Department of Natural Resources (DNR) to:
  - Assess water quality in Maryland's tidal waterways
  - Determine appropriateness of statistical methods being used
  - Create graphical user interface allowing users to easily produce visuals from DNR's water monitoring databases

**Summer Education and Training Internship**

6/2011 – 8/2011

Undergraduate Research Assistant

Department of Psychiatry, University of Colorado Denver

Mentors: Sharon Hunter, Ph.D. and Mark Groth

*P50 Sensory Gating in Infants*

- Produced instructional film on P50 sensory gating test and analysis methods being used in psychiatric lab

*Chimeric Animal Stroop Task for Young Children*

- Produced instructional films on administering and interpreting chimeric animal stroop task on young children methods used in psychiatric lab

## PUBLICATIONS:

### Peer Reviewed:

Zhang, X., **Ross, A.**, Caspi, A., Fogarty, J., Wobbrock, J., "Interaction Proxies for Runtime Repair and Enhancement of Mobile Application Accessibility." *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2017.

Klotz, C., **Ross, A.**, Clark, E., & Martell, C, "Tweet!—and I can tell how many followers you have," In *Recent Advances in Information and Communication Technology*, vol. 265, Boonkrong, Sirapat and Unger, Herwig and Meesad, Phayung, Springer International Publishing, 2014, pp. 245-253.

**Ross, A.**, Hunter, S., Groth, M., & Ross, R. "P50 Sensory Gating in Infants". *Journal of Visualized Experiments*, 50065, 2013. <http://www.jove.com/video/50065/p50-sensory-gating-in-infants>

Le, R., Rackauckas, C., **Ross, A.**, and Ulloa, N. "Assessment of Statistical Methods for Water Quality Monitoring in Maryland's Tidal Waterways." *SIAM Undergraduate Research Online* vol. 6, Apr., 2013. <http://www.siam.org/students/siuro/vol6/S01207.pdf>

### Technical Reports:

Le R., Rackauckas C., **Ross A.**, Ulloa N., Popuri S., Neerchal N., Smith B. [technical report] (2012) "Water Quality Monitoring of Maryland's Tidal Waterways". Technical Report HPCF-2012-12. UMBC High Performance Computing Facility. 2012. <http://www.umbc.edu/hpcf> >Publications

**Ross A.**, Ruiz J., Howe A. (2013) "Activity and User Recognition Using Mobile Phone Accelerometer and Gyroscope". Written for a Colorado State University Artificial Intelligence course honors options in Fall 2013.

### Posters and Presentations:

**Ross A. S.**, (2016) "Supporting Equity in Smartphone Accessibility with Third-Party Repair Tools". [presentation] Presented at the University of Washington's Scholars' Studio.

**Ross A. S.**, (2016) "Enhancing the Accessibility of Mobile Apps". [poster and presentation] Presented in the ACM Student Research Competition at the Grace Hopper Celebration of Women in Computing, Oct. 2016. *Awarded 2<sup>nd</sup> Place in the Research Competition*

**Ross A.**, Klotz C., Clark E., Martell, C. (2014) "Using Bayesian Statistics on Twitter Feeds to Classify Twitter Users". [poster] Presented at the Colorado State University's Celebrate Undergraduate Research and Creativity Showcase on April 17, 2014.

**Ross A.**, Klotz C., Clark E., Martell, C. (2014) "Using Bayesian Statistics on Twitter Feeds to Classify Twitter Users". [poster] Presented during the American Mathematical Association's Sectional Meeting at the University of Maryland, Baltimore County in March, 2014.

**Ross A.**, Le R., Rackauckas C., Ulloa N., Popuri S., Neerchal N., Smith B. (2013) "Water Quality Monitoring in the Chesapeake Bay". [poster] Presented at the Colorado State University's Celebrate Undergraduate Research and Creativity Showcase, on April 30, 2013.

Smith B., Le R., Rackauckas C., **Ross A.**, Ulloa N., Popuri S., Neerchal N. (2012) "A Powerful New Tool for Visualizing Water and Habitat Quality Data". [poster] Presented at the Maryland Water Monitoring Council's annual conference in December 2012.

**Ross A.**, Le R., Rackauckas C., Ulloa N., Popuri S., Neerchal N., Smith B. (2012) "Visualization and Analysis Tool for Water Quality Monitoring in the Chesapeake Bay". [poster] Presented at the Rocky Mountain Celebration of Women in Computing, on November 2, 2012.

Smith B., Le R., Rackauckas C., **Ross A.**, Ulloa N., Popuri S., Neerchal N. (2012) "A Powerful New Tool for Visualizing Water and Habitat Quality Data". [poster] Presented at the Atlantic Estuarine Research Society Fall meeting in October 2012.

Le R., Rackauckas C., **Ross A.**, Ulloa N., Popuri S., Neerchal N., Smith B. (2012) "Water Quality Monitoring of Maryland's Tidal Waterways". [poster] Presented at the Summer Undergraduate Research Fest (SURF) hosted by the University of Maryland, Baltimore County's College of Natural and Mathematical Sciences, August 8, 2012.

**Ross A.**, Groth M., Hunter S., Newton A., Muhlhauser K., Calvin E., Ross R. (2011) "Using Video to Teach Research Methods". [poster] Presented at the University of Colorado Conte Center Summer Retreat, August 26, 2011. *Awarded "Top Poster"*

**Ross A.**, Groth M., Hunter S., Muhlhauser K., Calvin E., Ross R. (2011) "Chimeric Animal Stroop Task for Young Children". [instructional video]  
<http://www.ucdenver.edu/academics/colleges/medicalschoo/departments/psychiatry/Research/developmentalresearch/Pages/Chimeric-Animal-Stroop-Test-for-Children.aspx>

## SERVICE

### Tutor

11/2016-present

Assisting and individual with low-vision with smartphone usage

### Costa Rican Animal Rescue Center

6/2015

Performed maintenance and animal husbandry and helped orient new volunteers to do the same resulting in better animal and facilities conditions

<b>Tutor</b>	9/2012-12/2014
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Helped a member of the community learn basic personal computer skills

<b>Fort Collins ReadAloud</b>	10/2012-6/2013
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Volunteer classroom reader for a program dedicated to promoting literacy through outreach programs and weekly readings in local elementary schools.

<b>Hogwarts Halloween</b>	10/2012
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Helped prepare for "Hogwarts Halloween," a Halloween program put on for children at a local community center

<b>Be a Scientist Tonight</b>	11/2011
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Engaged community members with science experiments and artifacts as "Be a Scientist Tonight," a community science night put on by students and faculty from the University of Hawaii at Manoa

## **HONORS AND AWARDS:**

2 <sup>nd</sup> place: ACM Graduate Student Research Competition at the Grace Hopper Celebration of Women in Computing	10/2016
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Honorable Mention: National Science Foundation Graduate Research Fellowship	2016
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Wilma Bradley Endowed Fellowship in Computer Science & Engineering	9/2015-6/2016
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Natural Sciences Undergraduate Fellowship	8/2014 - 12/2014
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Frances Allen Scholarship in Computer Science, awarded 2 years	8/2013 - 12/2014
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CSU Dean's Honors: Fall 2012, Spring 2013	8/2012 - 5/2013
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Ram Transfer Scholarship for academic achievement, awarded 2 years	8/2012 - 5/2014
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"Top Poster" award at the Conte Center Retreat Student Research Presentation	7/2011
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Dean's Honors at UCSC: Fall 2010, Winter 2011, Spring 2011, Winter 2012, Spring 2012	9/2010 - 6/2012
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