

# Sneha R. Krishna Kumaran

Human Computer Interaction at University of Illinois Urbana Champaign  
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## EDUCATION

**UNIVERSITY OF ILLINOIS AT URBANA CHAMPAIGN**, Urbana, IL **August 2015—Expected May 2020**  
**PhD**, Computer Science, **GPA: 3.86/4.00**  
**Thesis:** Encouraging feedback seeking and feedback giving behaviors  
**Advisor:** Brian P. Bailey

**OREGON STATE UNIVERSITY**, Corvallis, OR **September 2012—June 2015**  
**BS**, Computer Science, **GPA: 3.98/4.00**,  
**Thesis:** "Identifying a Ranking of Plant Preferences for a Pollinator"  
**Advisor:** Rebecca Hutchinson, Thomas G. Dietterich

## WORK EXPERIENCE

**UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN**, Urbana, IL. **August 2015 – Present**  
*Graduate Research Assistant, ORCHID Research Group, Advisor: Brian P. Bailey*  
Improved online feedback generation by using existing research on peer evaluation to design novel interfaces. Such interfaces include showing the history of a project to a feedback provider and having a mentorship model to provide feedback. Tested these interfaces by conducting long-term field experiments (A/B testing) and used mixed-methods analysis.

**BOSCH**, Pittsburgh, PA. **May 2017—August 2017**  
*Research Intern, Host: Lisa Yu*  
Developed a MEAN based social community for expert technicians to share their knowledge and novices to learn. In addition, developed a method to match teams within a large corporation for increased collaborations.

**INTEL CORPORATION**, Hillsboro, OR. **June 2015 – August 2015**  
*Validation Intern, Hosts: Sushmith Hiremath, Alexander Gutkin*  
Developed a kernel driver for firmware security validation of Intel's Xeon Phi software stack and added multiple modules to test for unique CPU APIC IDs and correct register access types utilizing Python and C++ extensions.

**OREGON STATE UNIVERSITY**, Corvallis, OR **September 2013 – June 2015**  
*Undergraduate Research Assistant, Advisors: Rebecca Hutchinson, Thomas G. Dietterich*  
Modeled insect interaction with various plant species in a meadow using the multinomial model and gradient descent in an interdisciplinary project. During the modeling process, we found that a naïve model does not explain the visiting behavior of insects. Our findings corroborated with hypotheses by biologists that insects have preferences for which plants to visit. This work cumulated in an undergraduate thesis.

**INTEL CORPORATION**, Hillsboro, OR. **June 2014 – September 2014**  
*Software Engineering Intern, Hosts: Sushmith Hiremath, Alexander Gutkin*  
Automated and created regression tests for the security team of the Intel Xeon Phi software stack for Linux and Windows.

## SKILLS/COURSEWORK

**Quantitative Methods:** Statistics, Survey design, Regression, Hierarchical statistical methods, Machine Learning, Deep Learning,  
**Qualitative Methods:** Interviews, Surveys, Usability testing, A/B testing, Hypothesis verification  
**Programming Languages:** Python, R, JavaScript and JavaScript Libraries, HTML, SQL  
**Courses:** Research methods in Human-Computer Interaction, Introduction to Human-Computer Interaction, User-Interface Design, Data-Driven Design, Cyber-Physical-Human Systems, Cognitive Science, Computer Vision, Natural Language Processing, Machine Learning

## PUBLICATIONS

**Sneha R. Krishna Kumaran**, Deana C. McDonagh, and Brian P. Bailey. 2017. Increasing Quality and Involvement in Online Peer Feedback Exchange. Proceedings of the ACM Human-Computer Interaction. 1, 1, Article 63, to appear. Acceptance Rate: 28%

Motahhare Eslami, **Sneha R. Krishna Kumaran**, Christian Sandvig, and Karrie Karahalios. 2018. Communicating Algorithmic Process in Online Behavioral Advertising. Proceedings of the ACM Conference on Human Factors in Computing Systems, 2018.

## TEACHING / MENTORSHIP

### **PURE Research Mentor**

**January 2018-May 2018**

Mentored undergraduate women in computer science to implement a research prototype. In addition to helping them gain technical and research skills,

### **Graduate Teaching Assistant**

**January 2018-May 2018**

TA for the graduate level course in Human Computer Interaction. Duties included grading and directing students through their term projects.

### **Undergraduate Teaching Assistant**

**September 2012-June 2015**

Lead labs for the Introduction to Computer Science sequence. Also conducted online tutoring sessions for advanced topics, such as algorithms and discrete mathematics, as part of an innovative program to improve distance education.

## Service

### **Engineering Graduate Student Advisory Council**

**2018-2019**

Advised the Office of Graduate, Professional and Online Programs and the College of Engineering Dean on the culture within Engineering Graduate Programs at the University of Illinois Urbana Champaign.

### **University Librarian's Student Advisory Council**

**2018-2019**

Advised the Dean of Libraries at the University of Illinois Urbana Champaign on the usage of libraries in the university and ideas for a new library building.

### **Graduate Ambassador**

**2016-2018**

Helped the computer science graduate admissions to organize a graduate women in computer science session during the graduate student recruitment weekend.