EDUCATION

**University of Illinois at Urbana-Champaign,** Urbana, IL **Expected May 2021  
PhD,** Computer Science (Human Computer Interaction), GPA: 3.83  
**Proposed Thesis:** “Fostering Feedback Seeking Behavior in Novices”   
**Advisor**: Brian P. Bailey

**Oregon State University,** Corvallis, OR **June 2015  
BS**, Computer Science, GPA: 3.98

SKILLS/COURSEWORK

**Programming Languages/Frameworks:** Python, R, Erlang, Haskell, JavaScript, React, Angular, PHP/Hack, C/C++, SQL, PyTorch, Android Studio, MongoDB, Node.js, AlphaPose

**Quantitative/Qualitative Analysis Methods:** Interviews, Iterative Coding, Participatory Design, Usability testing**,** Statistics, Survey design, Regression, Hierarchical statistical methods, Mixed-methods, Experimental design

**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

RESEARCH EXPERIENCE

**Feedback Seeking Behavior: University of Illinois**, Urbana, IL. **September 2017 – May 2019***Graduate Research Assistant, ORCHID Research Group, Advisor: Brian P. Bailey* - Interviewed designers about why they sought feedback and perceived barriers to sharing their work  
 - Identified themes from semi-structured interviews using iterative coding  
 - Further quantified interviews through a quantitative survey

**Methods for improved peer feedback in design education: University of Illinois**, Urbana, IL. **August 2015 – May 2017***Graduate Research Assistant, ORCHID Research Group, Advisor: Brian P. Bailey*  
 - Provided empirical evidence about how mentorship and project history affect feedback quality and student engagement   
 - Conducted a longitudinal study over one semester in a 60 student class  
 - Created a web system for students to upload work and provide feedback to peers (HTML, PHP, JavaScript, MySQL)  
 - Data analysis included hierarchical statistical models, interviews, and surveys

**Cross-domain and cross-culture collaboration: Bosch,** Pittsburgh, PA **May 2017—August 2017***Research Intern, Host: Lisa Yu* - Interviewed project managers and engineers of a large corporation about collaborations within a company  
 - Results helped the development of a method to match teams to one another based on the types of problems the teams were facing

**Undergraduate Research Assistant: Oregon State University,** Corvallis, OR **September 2013 – June 2015***Undergraduate Research Assistant, Advisors: Rebecca Hutchinson, Thomas G. Dietterich*  
 - Modeled a pollinator’s interaction with various plant species in a meadow  
 - Used a multinomial model and gradient descent to explain the number of visits a pollinator was observed making  
 - Found that assigning a preference to each plant improved the model

TECHNICAL EXPERIENCE

**Facebook Inc.**, Menlo Park, CA. **May 2019—July 2019***Machine Learning Infrastructure Engineering Intern at WhatsApp, Mentor: Vivek Srivastava* - Extended the existing spam report pipeline to handle a new message template (Erlang, Haskell)  
 - Created a UI to show details of the spam report and to mimic the layout of the new message template (React, Hack)  
 - Developed text-based deep net classifiers to detect violating content with ~80% accuracy (Haskell, FB Learner UI)   
 - Contributions were deployed in production code to the 1.5 billion active WhatsApp users

**Bosch,** Pittsburgh, PA. **May 2017—August2017***Research Intern, Host: Lisa Yu* - Developed a MEAN based social community for technicians to connect one another (Angular, MongoDB, Node.js)   
 - Gathered and displayed information from an external chatbot (developed by a teammate)   
 - Built a chatroom to for users to talk to one another using both text, audio, and video

**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  
 - Added two modules to test for unique CPU APIC IDs and correct register access types utilizing Python and C++ extensions  
 - Cross-compiled the driver to test on the older Xeon Phi Knight’s Corner coprocessor

RELEVANT PROJECTS

**Tutoring system for classical Indian dance**, Personal Project (in progress)  
 - Goal: To build a web-based tutoring system to provide immediate feedback to dancers without the need of an instructor  
 - Utilized AlphaPose library for pose detection on dancers  
 - Currently surveying dance teachers to determine heuristics for providing basic corrections to novice dancers

**WhatsApp user spam reporting accuracy**, Personal Project (in progress)  
 - Goal: Determine what messages WhatsApp users consider to be spam and how UI interactions can increase user reporting accuracy  
 - Collecting samples of spam messages that users believed were spam  
 - Comparing the reported spam messages to the current policy  
 - Plan to experimentally compare the accuracy of users with two different spam reporting interfaces

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. 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.

**Sneha R. Krishna Kumaran**. 2019. Fostering Feedback Seeking Behavior in Novice Designers. In Proceedings of the 2019 on Creativity and Cognition(C&C ’19). ACM, New York, NY, USA, 653-658. DOI: <https://doi.org/10.1145/3325480.3326564>

**Sneha R.** **Krishna Kumaran**, Wenshuan (Wendy) Shi, Brian P. Bailey. 2019. Triggers and Deterrents of Feedback Seeking Behavior in Design. ACM CHI 2020. *Under Submission.*

TEACHING/SERVICE

**PURE Research Mentor** **January 2018-May 2018**  
Mentored undergraduate women in computer science to implement a research prototype.

**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.

**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.

HONORS AND AWARDS  
**Teachers Ranked as Excellent,** University of Illinois Urbana Champaign **2018  
Grace Hopper Conference Travel Grant,** University of Illinois Urbana Champaign **2016  
Ducilla Shepard Smith Award**, Oregon State University. **2013 – 2015   
Rensselaer Polytechnic Institute Medalist**. **2010**