Sneha Krishna Kumaran

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105 S 4th St. Apt 302 Champaign, IL 61801

EDUCATION

University of Illinois at Urbana-Champaign, Urbana, IL
PhD, Computer Science, **GPA: 4.00/4.00**
Concentration: Human-Computer Interaction **Expected May 2020**

Oregon State University, Corvallis, OR
BS, Computer Science, **GPA: 3.98/4.00**,
Thesis: "Identifying a Ranking of Plant Preferences for a Pollinator", June 2015 **June 2015**

RESEARCH EXPERIENCE

Graduate Research Assistant: University of Illinois at Urbana-Champaign, Urbana, IL. **August 2015 – Present**
Currently conducting a classroom study on improving the social bonding in large classrooms using online peer review tools
Conducted a classroom study to see how crowdsourcing feedback helps product design students improve a class project
Managed 30-60 student participants
Conducted interviews to determine views of product designers towards receiving feedback through crowdsourcing

Undergraduate Research Assistant: Oregon State University, Corvallis, OR **September 2013 – June 2015**
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
Cumulated in an undergraduate thesis

TECHNICAL EXPERIENCE

Validation Intern: Intel Corporation, Hillsboro, OR. **June 2015 – August 2015**
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

Software Intern: Intel Corporation, Hillsboro, OR. **June 2014 – September 2014**
Automated tests and created regression tests for the security team of the Intel Xeon Phi software stack for Linux and Windows
Worked autonomously to write several shell scripts for Linux and Windows to help the automation of the tests
Reported my progress to two full-time employees

PROJECTS

Charta: A Visual Map of Papers in a Researcher's Library, Urbana, IL. **August 2015 – December 2015**
Developed the user interface using a JavaScript framework as a term project for the User-Interface Design course
Worked in a group of 5 computer science students at various levels of education
Created an innovate way to visualize how the ideas in research papers are connected

Home Sensor to Optimize Energy Use and Save Money, Corvallis, OR. **September 2014 – June 2015**
Developed the user interface for a home energy monitoring and control system
Provided the user information about their energy use and optimized
Collaborated with electrical engineers

Wearable Skin Sensor for Research in Music, Corvallis, OR. **December 2013 – June 2014**
Collaborated with a Professor of Music to create a device to measure emotional response through skin conductance
Worked in a team with 2 computer science and 1 electrical engineering student
Wrote software to visualize and perform computations on data received from the hardware using Node.js, Python, and QT

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LEADERSHIP AND TEACHING EXPERIENCE

Online Tutor: Oregon State University, Corvallis, OR. **February 2015 – June 2015**
Worked with online students returning to university with previous backgrounds in non-engineering fields
Tutored students in Discrete Math and Introduction to Algorithms coursework with proofs and problems in reductions
Visualized problems for students and helped them convert visuals into equations they could solve

Undergraduate Teaching Assistant: Oregon State University, Corvallis, OR. **September 2012 – March 2014**
Led 2 lab sessions for the Introduction to Computer Science series for a diverse group of students
Encouraged students to stay with computer science and engineering majors
Evaluated students objectively through grading assignments and tests
Communicated feedback about the labs and assignments and suggested solutions to problems in the course to the course professor

SKILLS

Quantitative: Data Analysis, Statistics, Regression
Programming Languages: C/C++, Python, R, MATLAB, SQL, HTML, JavaScript
Soft Skills: Teamwork, Quick Learner, Communication, Training/Teaching

RELEVANT COURSEWORK

User-Interface Design, Machine Learning, Artificial Intelligence, Numerical Linear Algebra, Computational Number Theory, Scientific Computing

HONORS AND AWARDS

Ducilla Shepard Smith Award, Oregon State University. **2013 – 2015**
Rensselaer Polytechnic Institute Medalist. **2010**