Michelle Koo

3027 Silva Way, San Ramon, CA 94582
925.336.4519

michellekoo@berkeley.edu
michellekoo.github.io
michellekoo
linkedin.com/in/michellekoo

Work Experience

Workday
Pleasanton, CA
May - August 2016

Software Developer Engineering Intern
- Worked on the Performance Team in the Tools and Organizations division to enhance the existing Performance Portal by implementing progress bars to reflect job status updates
- Used Scala, Apache Spark, Node.js, and Angular 2 to create an ANSI-SQL interpreter to allow users unfamiliar with Scala to run Spark queries beyond the capabilities of the Performance Portal in SQL

Lawrence Berkeley National Laboratory
Berkeley, CA
June - August 2015

Science Undergraduate Laboratory Intern (SULI)
- Worked in the Computational Research Division on I/O optimization analysis on performance measurement data from scientific clusters
- Created an I/O performance analysis framework that helped uncover and analyze bottlenecks in the Palomar Transient Factory scientific application using Python, Spark, iPython notebook, and Matplotlib

Undergraduate Journal of Psychology at Berkeley
Berkeley, CA
Jan 2015 - Present

Chief Technology Officer
- Maintained and updated the journal's previous website, and helped create a blog on Wordpress
- Created a new site for the journal on Github (ujpb.github.io) using HTML and CSS

University of California, Berkeley
Berkeley, CA
June - August 2014
August - Dec 2015

Structure & Interpretation of Computer Programs Lab Assistant
- Helped, guided, and tutored students with lab exercises, homework, and projects

Yang Fan Academy
Pleasanton, CA
June - August 2013

Web Design Teacher and Tutor
- Taught children grades 4th to 8th grade the principles of Web Design, scanned tests, managed the student database , and tutored children in Math and English

Organizations:

UC Berkeley Computer Science Scholars *(Jan 2014 - Present)*
UC Berkeley Society of Women Engineers: Corporate Committe *(Aug 2014-Present)*
- Organized and recruited companies for the Shadow an Engineer Program
- Awarded Outstanding Committee Member Award in Dec 2014

Technovation Challenge Top Ten World Finalist *(Aug - May 2013)*
- Created the prototype and basic functionality of a social network Android app called Neighborhoot to bring communities together
- Presented at the World competition and was featured on ABC news

Research Posters and Publications:

- M. Koo, W. Yoo (advisor), A. Sim (advisor), ***"I/O Performance Analysis Framework on Measurement Data from Scientific Clusters"***, International Conference for High Performance Computing, Networking, Storage, and Analysis (SC'15), ACM Student Research Competition (SRC), 2015.
- W. Yoo, M. Koo, Y. Cao, A. Sim, P. Nugent, K. Wu, ***"PATHA: Performance Analysis Tool for HPC Applications"***, *the 34th IEEE International Performance Computing and Communications Conference (IPCCC 2015)*, 2015.
- W. Yoo, M. Koo, Y. Cao, A. Sim, P. Nugent, K. Wu, ***"Performance Analysis Tool for HPC and Big Data Applications on Scientific Clusters "***, *Conquering Big Data Using High Performance Computing*, edited by R. Arora, Springer, 2016.

Education

University of California, Berkeley
Computer Science B.A.
Expected May 2017

Relevant Courses:
- Structure & Interpretation of Computer Programs
- Data Structures and Advanced Programming
- Machine Structures
- Discrete Mathematics and Probability
- Structure & Interpretation of Systems & Signals
- Intro to Microelectric Circuits
- Efficient Algorithms and Intractable Problems
- Artificial Intelligence
- Operating Systems

Fall 2016 Courses:
- Intro to the Internet: Architecture & Protocols
- Computer Security

Projects

Gratitude Journal *(Ruby on Rails)*
- Implemented back-end functionality to allow users login to save daily gratitudes, post gratitudes publicly, and like public gratitudes

Pacman Capture the Ghost Contest *(Python)*
- Placed top ten in the final class Artificial Intelligence contest by implementing AI strategies

Pintos *(C)*
- Enhanced the Pintos operating system by adding extensible files and directories, syscalls for user programs, and a thread scheduling system

Graph API *(Java)*
- Implemented graph search algorithms to support 2 clients: a simplified version of google maps, and make files

Note: More projects are listed on my website

Skills

Python	●●●●●
Java	●●●●○
HTML/CSS	●●●●○
Javascript	●●●●○
C	●●○○○
Scala	●●○○○

Additional Skills
- Apache Spark
- Node.js
- Angular 2
- Ruby on Rails
- MIPS
- MatLab
- Adobe Photoshop
- Git
- SVN
- UNIX/Linux
- Mac OS X
- Microsoft Windows 7
- iPython notebook
- Python Matplotlib