

# Michelle Koo

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## **Education:**

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

*Related courses:* Calculus II, Linear Algebra and Differential Equations, The Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory, Data Structures and Advanced Programming, Machine Structures, Structure and Interpretation of Systems and Signals, 3D Animation

*Fall 2015 Courses:* Operating Systems, Introduction to Microelectronic Circuits, Industrial Engineering and Operations Research Mobile Meets World Entrepreneurship Challenge Lab

## **Work Experience:**

**Lawrence Berkeley National Laboratory**.....June 2015-August 2015  
*Science Undergraduate Laboratory Internship (SULI Research Intern)*

- Worked in the Computational Research Division as part of the U.S. Department of Energy's SULI program on I/O optimization analysis on performance measurement data from scientific clusters
- Created a Darshan parser/tool in Python using Apache Spark that analyzed the HPC computing tools' I/O logs and calculated performance measurements
- Created an I/O performance analysis framework that helped uncover and analyze bottlenecks in the Palomar Transient Factory application using Python, Spark, iPython notebook, and Matplotlib

**Undergraduate Journal of Psychology at Berkeley**.....January 2015-Present  
*Chief Technology Officer*

- Maintained and updated the old website on Wordpress located at [ujpb.org](http://ujpb.org)
- Helped create a blog hosted at [undergraduatejournalofpsychologyatberkeley.wordpress.com](http://undergraduatejournalofpsychologyatberkeley.wordpress.com)
- Moving the website from Wordpress to create a new website hosted on Github using HTML and CSS.

**University of California, Berkeley**.....June 2014-August 2014  
*The Structure and Interpretation of Computer Programs Lab Assistant/Academic Intern*

- Helped, guided, and tutored students with lab exercises, homework, and projects
- Part of the Lab Review committee where I fixed errors and improved/wrote labs

**Yang Fan Academy**.....June 2013-August 2013  
*Web Design Teacher*

- Taught children 4<sup>th</sup> grade to 8<sup>th</sup> grade the basics of web design
- Scanned tests, managed the student database, and tutored children of all grades in math and English

## **Organizations:**

**National Society of Leadership and Success**.....January 2015-Present

**UC Berkeley Computer Science Scholars**.....January 2014-Present

**UC Berkeley Society of Women Engineers: Corporate Committee**.....August 2014-Present

- Organize and recruit companies for the Shadow an Engineer Program
- Awarded Outstanding Committee Member Award in December 2014

**Technovation Challenge Competition World Top Ten Finalist**.....August 2013-May 2013

- Created the prototype and basic functionality of a social network Android app called Neighborhood to bring neighbors and communities together
- Gained entrepreneurship skills, teamwork skills, and basic programming skills

## **Projects:**

**I/O Analysis Framework on Measurement Data from Scientific Clusters**.....Research at LBNL

**"Performance Analysis Framework on Application Execution Measurement from Scientific Clusters"**.....Co-author on research paper at LBNL currently submitted for publishing

**Undergraduate Journal of Psychology at Berkeley**.....<http://ujpb.org>

**Hangman Web Application**.....<http://michellekoo.github.io/hangman.html>

*Note:* More projects and details are listed on my personal website <http://michellekoo.github.io>

## **Computer Skills:**

Python, Java, C, Microsoft Visual Basic, Photoshop, Dreamweaver, HTML, CSS, JavaScript, MatLab, Apache Spark, OpenMP, MIPS, Git, SVN, iPython, Python Matplotlib, Maya, Wordpress, Mac OS X, Microsoft Windows 7, UNIX, Linux