

# Esther Xuanpei Ouyang

github.com/Estheroy

## EDUCATION

### UNIVERSITY OF CALIFORNIA, BERKELEY

#### Double Major in

#### Computer Science & Statistics

Expected Graduation 2018

Major GPA: 3.9/4.0

## COURSEWORK

- ▶ Algorithms
- ▶ Data Structure
- ▶ Statistics & Probability
- ▶ Machine Learning
- ▶ Numerical Analysis
- ▶ Object-Oriented Programming
- ▶ Software Programming
- ▶ Data Modeling & Analysis
- ▶ Linear Algebra
- ▶ Discrete Mathematics
- ▶ Computer Architecture

## SKILLS

Programming Languages:

Java • C/C++ • MATLAB • Python  
Shell Programming • HTML5 • CSS3  
JavaScript • LATEX • Assembly

Tools & Technologies:

Android Studio • Firebase  
JIRA • GIT • CircleCI • Unix/Linux  
Adobe Premiere • InDesign • Illustrator

Techniques:

Agile Development • Basic OOD  
Design Patterns • Mobile Software  
Programming

## CONTACT



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## RELEVANT EXPERIENCE

### California Institute for Telecommunications and Information Technology | Research Assistant

July 2016 - August 2016 | San Diego

- Worked on data collection and algorithm development in a fall risk assessment study
- Used various computer vision algorithms in Matlab to analyze SPPB tests
- Developed a convenient computer vision based algorithm candidate for functional balance test

### The EnVision Arts and Engineering Maker Studio | Summer Internship

July 2016 - August 2016 | San Diego

- Created and maintained an online wiki page for the EnVision Maker Studio
- Designed the wiki page to feature a growing repository of tutorials and guidance

### Computer Science and Engineering Department | Tutor

September 2015 - July 2016 | UC San Diego

- Communicated effectively with students and professors to help teach Java programming
- Graded the assignments of 15 students every week and exam papers
- Assisted in lab and hold tutor hours to help students complete assignments
- Worked as a in-class tutor to help students learn better by leading in-class discussions

### Data Science Student Society | Technical Officer

September 2015 - July 2016 | UC San Diego

- Wrote event proposal and arranged events with group members in the UC, San Diego and contacted and cooperated with some student organizations to hold workshop.
- Also served as one of principal members. Responsibility included: help to organize workshops, during workshop, teach attendees to program in python, explain data science concepts, methods and implementations to help attendees learn better.
- Attended weekly meeting and discuss and arrange Data Science workshops with other team members.

### Engineering for a Sustainable World | Project Member

October 2014 - October 2015 | La Jolla

- Created an off-grid house that is both energy-efficient and sustainable with all of its energy from renewable sources and build a model of the off-grid energy house.
- Worked in collaboration with project members to design for the project and helped to arrange the tasks of each member of the project group and weekly meetings.

## PROJECTS

### iMed | HTML, CSS, IBM Watson API

- Personal medical assistant with natural language processing ability

### 2048 Game | Java, JavaFx

- Java/JavaFX clone of the popular 2048 game with new features rotate and undo

### Final Project Research Paper | MATLAB, NumPy, sklearn

- An Empirical Comparison of Five Supervised Learning Algorithms

### CoupleTone | Android Studio, Google API, Firebase, JUnit

- Android mobile app for tracking and getting notification about friends' locations

### Machine Learning Algorithm Implementation | Python, MATLAB, Lua

- Implementation of supervised and unsupervised Machine Learning Algorithms
- Implementation of Numerical Analysis Algorithms