# **ASHLEY LIN**

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#### **EDUCATION**

UC Berkeley - Bachelor of Science in Engineering

Expected 2019

- Major: Electrical Engineering and Computer Science, GPA: 3.7
- Study Abroad: Osaka University, Japan (Summer 2016), University of Toronto, Canada (Summer 2017)

#### Relevant Coursework:

CS: Algorithms, AI, Computer Architecture/Machine Structures, Data Structures, Optimization/Pipelining

EE: Signal and Systems, Designing Information Devices and Systems, Feedback Control

Math: Linear Algebra, Multivariable Calculus, Probability, Discrete Math

#### **SKILLS**

Programming: Python, PhP/Hack, Java, SQL, C, Scheme, LaTeX, Javascript, React

**EE Hardware:** MicroControllers, oscilloscopes, function generators, digital multimeters, power sources

Languages: Chinese Mandarin

#### **EXPERIENCE**

Facebook, Inc - Software Engineering Intern

5/18 - 8/18

- · Build data auditing infrastructure for tracking 2M daily mutations and calculating Salesforce API consumption
- Drive ML efforts to obtain data and train a GBDT model in FBLearner (flow)
- · Design and implement React UI hub to surface and aggregate low level data

## Tesla, Inc - Software Engineering Intern

1/18 - 5/18

- Develop a Python algorithm that reduced false fails by 17% which decreased downstream cycle time
- Lead R&D efforts for automated test systems using thermography, computer vision, and VGG16 neural network
- Design ETL analytical script for post processing and reporting manufacturing/test data

#### UC Berkeley Dept of Electrical Engineering (EE16B) - Student Instructor

8/16 - Present

- Lead instructor for two 40 student labs design, build, and debug circuits to build intuition for how systems respond
- Teaching students C and Python for running simulations via Jupyter Notebooks and microcontrollers
- Manage/train 7 lab assistants and oversee their growth as effective engineers and teachers

## **Electrefy** - Engineering Intern

6/17 - 8/17

- Design and test battery configurations with laboratory electronics to optimize output
- Build company website after restructuring value proposition and performing market research

### The Boeing Company - Engineering Intern

6/14 - 8/14

- · Design, CAD, and build hardware fixtures as well as documenting instructional tickets
- Coordinating events and managing email notifications to fellow interns as co-leader of an Integrated Product Team

#### RELEVANT PROJECTS

**Text Editor** - design a data structure and implementing functionalities for scrolling, highlighting, deleting, saving **Map Pathing** - maximize the tradeoff between resolution and memory and find the shortest path using A\* & Dijkstra **CPU Simulation** - build and simulate back end components (ALU, Regfile) of a computer via Logism that translates C code to machine code with pipelining optimizations

**PacMan** - optimize a pacman character to utilize Markov Models (MDP, HMM) and CSP to win against ghost agents **Project SITXT33N** - architect a control feedback (PID) robotic car that processes vocal commands using SVD & PCA

#### **ACTIVITIES**

## Society of Women Engineers (SWE) - Outreach Committee

8/15 - Present

· Coordinate and lead outreach and volunteering events to host tech seminars and DIY science projects

#### First Robotics Competition (FRC) - Vice President

8/12 - 5/15

- Wrote a business plan for sponsors and was approved a \$5000 NASA grant
- Manufacture the drive chain and chassis for the robot and built field elements for running simulations