ASHLEY LIN

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EDUCATION

UC Berkeley - Bachelor of Science in Engineering — Expected 5/19

- 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: 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: C, Python, Java, Scheme, SQL, LaTeX, MIPS, JADE ; familiar Swift, HTML, MIT App Inventor
EE Hardware: MicroControllers, oscilloscopes, function generators, digital multimeters, power sources
Languages: Chinese Mandarin
Interests: Drawing, figure skating, sewing, and photography

EXPERIENCE

Student Instructor - *UC Berkeley EE Dept Designing Information Devices and Systems (EE16B)* — 8/16 - Present

- Lead instructor for two 40 student labs - design, build, and debug circuits to build intuition for how systems respond
- Teaching students how to code in C for microcontrollers and iPython for running simulations
- Leading and training 7 Academic Intern assistants for class
- Coordinating robotic car design competition with Texas Instruments

Intern - *Electrefy (Power Electronics Tech Startup)* — 6/17 - 8/17

- Repurposing electric car batteries for low emission power systems
- Testing and R&D battery configurations with laboratory electronics to optimize utility
- Research peer to peer communication and data analysis using Java Agent DEvelopment JADE with PhD candidate
- Develop and restructure the value proposition after thorough market research, competitor analysis, and validation
- Redesign company website and marketing material to reflect new product

Intern - *The Boeing Company* — 6/14 - 8/14

- Modify a 3D model of a pendulous integrated gyroscopic assembly and filmed an instructional video for it
- CAD schematic diagrams with ProgeCAD, maintain inventory, organize data in spreadsheets, and deliver supplies
- Modify a relay auto cycle unit and CAD a schematic diagram for it
- Coordinating events and managing email notifications to fellow interns as co-leader of an Integrated Product Team

Administrative Assistant - *Berkeley Resource Center for Online Education* — 1/17 - 5/17

- Respond to SalesForce support tickets regarding academic technologies and administrative processes
- Analyzing course data and managing the school's course database (Destiny)

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 network feedback (PID controller) system implemented in a robotic car that processes/obeys vocal commands using SVD & PCA with a MSP430 microcontroller

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 grant from NASA
- Execute the primary interface role between other teams, tech organizations, and the school administration
- Manufacture the drive chain and chassis for the robot and built field elements for running simulations