Priscilla Chan

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EDUCATION

Bachelor of Science in Biomedical Engineering, emphasis on Medical Devices — Expected Graduation June 2019
University of California, Davis, Davis, CA | GPA: 3.5

EXPERIENCE

Research Assistant, **Daisuke Sato, Ph.D. Theoretical Cardiology Lab,** Davis, CA — Mar. 2017 – present

- Used MATLAB to model action potentials using the Hodgkin-Huxley and Fitzhugh-Nagumo equations.
- Created a Python and Arduino code to model entrainment in fireflies utilizing LED lights, Raspberry Pi, circuit design, and a photosensor. Applied the system to the wheels of a toy car and experimented with motor movement to demonstrate machine synchronization.
- Used BioMetal fibers, shape-memory alloys, circuits, a Raspberry Pi, 8 channel mechanical relays, Solidworks, 3D printing, and soldering to model muscle contractions, which was used to make a creative toy car with flexible flooring.
- Used GitHub to manage the lab website and track project codes. Lab website: https://dsatolab.github.io/Site/

Research Assistant, **Tingrui Pan, Ph.D. MiNI Lab,** Davis, CA — Nov. 2017 – present

- Used a digital manometer and LCR meter to gather data from lab fabricated pressure sensors, then graphed and analyzed the data to test accuracy.
- Conducted a literature review to identify different sensors and their applications on measuring heart rate.
- Used LabVIEW, National Instruments' NI Elvis Board II, operational amplifiers, and lab fabricated pressure sensors to measure heart rate from the foot.

Intern, **Marjan Philhour for District Supervisor Campaign,** San Francisco, CA — Aug. 2016 – Sept. 2016

- Communicated in English and Cantonese with district residents through phone calls and face to face interaction at events and meetings to advocate for the election candidate.
- Entered citizen data into an online voter database and worked in a team to create an internship training video.

RELEVANT COURSEWORK

- **Electronic Circuits and Systems** — Sept. 2017 – Dec. 2017
  Used a National Instruments' Virtualbench and the Teensy Arduino to gather data and analyze Wheatstone bridges, operational amplifiers, filters, and digital logic circuits. Combined what was learned throughout the course to create a working photoelectric sensor that outputs a number from 1 to 9, corresponding to the intensity of light.
- **Programming in C Language** — June 2017 – Aug. 2017
  Learned C programming that culminated in the creation of a mazebuilder program that let the user turn a grid into a maze by breaking user desired grid walls. Codes on GitHub: https://github.com/priichan/Mazebuilder-Program
- **Engineering Computing and Visualization Using MATLAB** — Oct. 2016 – Dec. 2016
  Worked in a team of three to use MATLAB to create an audio file editor program that allows a user to upload any audio file and edit the file using different effects. Codes on GitHub: https://github.com/priichan/Audio-File-Editor
- **Introduction to Biomedical Engineering** — Oct. 2015 – Nov. 2015
  Worked in a team of five to utilize recycled material to design a portable device to help hemiplegic children tie their shoes using standard shoelaces.

CAREER DEVELOPMENT

Member, **Biomedical Engineering Club**, Davis, CA — Sept. 2016 – present

- Participated in the club's research committee by advertising the 2017 undergraduate research symposium and facilitating registration.
- Promoted Biomedical Engineering at Engineering Day by speaking to high school students and facilitating a water balloon helmet activity.
- Mentored a younger member on biomedical engineering classes and career development.

CORE EXPERIENCE

Software: MATLAB, C, Python, Solidworks, LabVIEW, Raspberry Pi, Arduino, GitHub, HTML, CSS
Languages: English and conversational Cantonese