Priscilla Chan

priscillag.chan@gmail.com
pychan@ucdavis.edu

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

- Modeled action potentials with MATLAB and two sets of equations (Hodgkin-Huxley and Fitzhugh-Nagumo).
- 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.
- Utilized BioMetal fibers, shape-memory alloys, a Raspberry Pi, 8 channel mechanical relays, Solidworks, 3D printing, and soldering to model muscle contractions, the base of a creative toy car with flexible flooring.
- Managed the lab website and tracked project codes with GitHub. Lab website: https://dsatolab.github.io/Site/

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

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

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

- Advocated for the election candidate by interacting with district residents in English and Cantonese.
- Uploaded citizen data into an online voter database and filmed an internship training video with a team of two interns.

RELEVANT COURSEWORK

- **Electronic Circuits and Systems** — Sept. 2017 – Dec. 2017
  Analyzed Wheatstone bridges, operational amplifiers, filters, and digital logic circuits with National Instruments' Virtualbench and a Teensy Arduino. Accumulated this information to create a working photoelectric sensor that outputs a digital number from 1 to 9, each number corresponding to the intensity of light detected.
- **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
  Programmed a MATLAB audio file editor with a team of three students. The program 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
  Designed a portable device with a team of five students to help hemiplegic children tie their shoes.

CAREER DEVELOPMENT

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

- Advertised the 2017 Undergraduate Research Symposium and facilitating registration with the research committee.
- Promoted Biomedical Engineering at Engineering Day by facilitating a water balloon helmet activity with students.
- Mentored a newer member on biomedical engineering classes and career development.

Competition Participant, **2018 UC Davis Make-a-Thon,** Davis, CA — Jan. 2018

- Competed for 48 hours in a team of five. Used Autodesk Fusion 360 to design a device that produced custom immunodiffusion plates, which are used in Coccidioidomycosis diagnosis. Won the "Most Creative Team" award.

CORE EXPERIENCE

Software: MATLAB, C, Python, Solidworks, Autodesk Fusion 360, LabVIEW, Raspberry Pi, Arduino, GitHub, HTML, CSS, Microsoft Office (Word, Powerpoint, Excel, Outlook, OneNote)
Languages: English and conversational Cantonese