Yuqing (Hailey) Huang

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EDUCATION

Bachelor of Science in **Biomedical Engineering** Expected Dec 2019
University of California, Davis Overall GPA: 3.4
Honor Dean's Honors List for Spring Quarter 2016

SKILLS & TECHNOLOGIES

MATLAB	Lathe	OpenVibe	Frozensectioning
HTML	Milling	Arduino	Immunohistochemistry
C Programming	3D Printing	LabView	Isolating bacteria colonies
SolidWorks	Laser Cutting	Chimera	Making liquid bacterial cultures
Autodesk Fusion 360	Drill Press	PCR	Word, PowerPoint, and Excel
Hololens	Soldering	Gel Electrophoresis	Microsoft and Mac system

Languages: Native speaker in Chinese (Mandarin and Cantonese)

EXPERIENCES

Lab Researcher*, Sato Lab*, Davis, CA Apr. 2018 – Present
- Integrated mathematical models like Hodgkin-Huxley and Fitzhugh-Nagumo equations in Arduino codes to simulate cardiac activities and to test functions of shape memory alloys and actuators.
- Identified problems in using actuators, MEMS devices, and mathematical modeling to make a half-virtual-half-physical cardiac muscle. Prototyped mechanical heart muscle cells using 3D printing.

Biomedical Volunteer*, Sacramento VA Medical Center*, Mather, CA May. 2018 – Sep. 2018
- Tested and conducted maintenance on the medical devices alongside with the biomedical engineers and technicians in the hospital.
- Managed medical equipment inventory and organized devices in the warehouse for easy access.

Undergraduate Scholar, Biology Undergraduate Scholars Program (BUSP), Davis, CA Sep. 2015 – Feb. 2017
- Practiced laboratory skills and networked with students and professionals. Outreached to middle school students through the penpal program to share my college experience, encourage them to pursue higher education, and inspire them to study science, technology, engineering, and math (STEM).

Assistant Technical Director, *Picnic Day Board*, Davis, CA Mar. 2016 – Apr. 2016
- Organized websites for picnic day events. Managed and set up audio equipment for performers and resolved issues during performances with fast response.
- Teamed with other departments to ensure the order of the stage. Advised the Picnic Day Board on how to provide a safe environment in preparation of and on Picnic Day.

PROJECTS

Digital Fireflies Project Apr. – Jun. 2018
- Created digital fireflies that react to the brightness of their surrounding environment with Arduinos, photosensors, and LEDs. Programmed the code of the fireflies using the FitzHugh-Nagumo model and Hodgkin-Huxley model so that a group of fireflies synchronized and flash at the same frequency after being put together for a while.

Make-a-thon 2018 with BMES Jan. 2018
- Designed a medical device with four other teammates to fulfill user need in a 48 hours competition for students in BME. Prototyped using CAD, revised on ideas, improved drafts, and assigned time spent on tasks.

Audio player project Sep. – Dec. 2016
- Designed an audio player with two other teammates using MATLAB. Coded and debugged various audio effects including echo, delay, voice removal, treble, and bass. Shot a YouTube video for the project using screen recording and edited it.

ACTIVITIES

Member, Biomedical Engineering Society (BMES), Davis, CA Mar. 2017 – Present
Vegan Cheese Group Member, BioInnovation Group, Davis, CA May. 2017 – Sep. 2018