

# ERIC ZHONG

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## EDUCATION

### University of California, Berkeley

B.S. Energy Engineering,  
Electrical Engineering and  
Computer Science(minor)

GPA: 3.2/4.0

Graduation: May 2020

### Coursework:

- Data Structures
- Design of Cyber-Physical Systems
- Designing Information Devices and Systems
- Dynamic Feedback Systems
- Electric Power Systems
- Engineering Data Analysis
- Introduction to Robotics
- Mechatronics Design Lab
- Signals and Systems
- Three-Dimensional Modeling

## SKILLS

- C++
- Java
- JavaScript
- MATLAB
- Python
- ROS
- Solidworks
- Simulink

## CONTACT

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## EXPERIENCE

### BAE Systems, Inc

May 2019 - August 2019

*Electrical Engineering Intern*

San Jose, CA

- Supported the avionics integration of the Amphibious Combat Vehicle
- Troubleshooted electrical schematics and power distribution components
- Implemented test bench setup to test FPGA logic board failure modes
- Streamlined installation bills of materials to reduce redundancy

### Innogy SE

June 2018 - August 2018

*Grid Services Intern*

Essen, Germany

- Researched the implementation of a grid-integrated superconductor
- Utilized Google Design Sprints to create product management templates
- Performed cost-analysis for Innogy's smart-grid and microuilities position against European counterparts

### NASA Jet Propulsion Laboratory

May 2017 - August 2017

*Intern*

La Cañada Flintridge, CA

- Assisted in developing a multiwavelength digital holographic microscope
- Wrote an image coalignment MATLAB script to improve signal-to-noise ratio
- Applied Fourier transforms to digitally refocus images from a single plane reconstruct volumetric image
- Outlined the principles of digital holography and multiwavelength system implications at the 2018 SPIE Photonics West conference

## PROJECTS

### Smart Hearing Sensor

September 2019 - PRESENT

- Performed Design Sprint to prototype lost-items alerting device for deaf people
- Integrated a GPS logger, accelerometer, and haptic actuator in Arduino to alert for immediate drops or track items already labeled as lost
- Utilizes RESTful web API to parse location and time data with Google Maps

### Smoothie Making Robot

September 2019 - PRESENT

- Programmed Baxter(industrial robot) to "blend" a smoothie per user input
- Implemented clustering algorithm to identify the fruits within a point cloud
- Utilized principal component analysis to differentiate between fruits and locate gripping points

### Eagle Project (Boy Scouts of America)

March 2018 - May 2018

- Planned and oversaw the full-scale renovation of the outdoor gardens at my local senior residency

## ORGANIZATIONS

### IEEE Micromouse

January 2019 - PRESENT

*Staff Member*

Berkeley, CA

- Instructed students to assemble automated, maze-solving cars
- Helped students implement feedback controller theory, wall-following, and maze-solving algorithm in the Arduino PID

### Berkeley Hyperloop

January 2019 - September 2019

*Propulsion Team Member*

Berkeley, CA

- Designed mock-up for the pulley system in order to attain maximum speed of 150MPH in a vacuum
- Ran simulations in Simulink to develop dynamic feedback script for the finalized pod vehicle