

# Richard Dominguez

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## EDUCATION

### UNIVERSITY OF CALIFORNIA, MERCED

BS IN MECHANICAL ENGINEERING  
May 2021 | Merced, CA

## LINKS

[linkedin.com/in/richard-domi90](https://www.linkedin.com/in/richard-domi90)

## COURSEWORK

### UNDERGRADUATE

#### Upper Div. Coursework

Mechatronics  
Heat Transfer  
Thermodynamics  
Component Design  
Numerical Analysis  
Vibration & Control  
Computer Aided Engineering  
Intermediate Differential Equations

## SKILLS

### TECHNICAL

#### Software:

Simulink • Arduino • SQLite  
SolidWorks • Fritzing • MATLAB  
Microsoft Office

#### Languages:

Java • R

#### Hard Skills:

Machining • Soldering

#### OS Experience:

Ubuntu 18.04 (Personal) • Windows

#### Foreign Language:

Spanish

## EXPERIENCE

### AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

| PROJECT PULSEJET: THEORETICAL CALCULATIONS TEAM LEAD

April 2017 – Present | Merced, CA

- Provide an analysis of how a pulsejet's efficiency is affected by volcanic ash.
- Used efficiency equation to relate theoretical, and experimental, thrust and heat values.

### THETA TAU, PROFESSIONAL ENGINEERING FRATERNITY

| HISTORIAN

February 2018 – Present | Merced, CA

- Assisted in transforming a bicycle into an E-bike.
- Collaborated in constructing garden boxes dedicated to Merced's local children's center, and documented construction progress.

### ENGINEERING SERVICE LEARNING

| QUALITATIVE TEAM MEMBER

January 2018 – May 2018 | Merced, CA

- Collected user data through observation and Qualtrics software to implement a better user interface.
- Collaborated in writing Preliminary Design Review and Final Design Review.

### SOCIETY OF HISPANIC PROFESSIONAL ENGINEERS

| GENERAL MEMBER

August 2016 – May 2018 | Merced, CA

- Used my personal experience to promote STEM and guide eight high school students in constructing a popsicle-stick bridge.

## EMPLOYMENT HISTORY

### RESIDENT ASSISTANT | FRESNO, UPWARD BOUND PROGRAM

Summer 2018 | Fresno, CA

- Supervised a group of twelve high school students.
- Collaborated with a team of eight to develop and implement social, and recreational, programs in a timely manner.

### OC PHOTOGRAPHY | ASSISTANT PHOTOGRAPHER

July 2014 – August 2015 | Santa Ana, CA

- Photographed, assisted with lighting, and transported equipment.

## PROJECTS

### LEVITATING PING-PONG BALL

Spring 2019

- Worked with a partner to develop a device capable of levitating a ping-pong ball at a desired height. Created casing for fan using CAD, and integrated PID control to system using Simulink.