

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.