

# DOMINIC V. ORLANDO

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## EDUCATION

University of California, San Diego

BS/MS Student in Electrical Engineering

Oct. 2020 - June 2025

- Depth in **Machine Learning and Controls**
  - **Relevant Coursework:** Linear Control System Theory; Linear/Nonlinear Optimization; Digital Systems; C Programming; Circuits and Systems; Deep Learning w/ Applications; Intelligent Systems & Robotics; Pattern Recognition & Machine Learning; Product Engineering; Signal Processing; Product Management; Autonomous Vehicles
  - Member of Eleanor Roosevelt College, which requires advanced rhetorical coursework
  - Provost Honors recipient seven quarters
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## WORK EXPERIENCE

Instructional Assistant, University of California, San Diego

September 2023 - Present

- IA for ECE 17: Object-Oriented Programming: Design and Development with C++

Software Engineering Intern, Agile Displays

June 2023 - October 2023

- Worked on a host of C# and .NET tools used during the manufacturing process
- Simultaneously created more “modern” versions of these tools utilizing **Python, JavaScript, Docker, PostgreSQL** and **WebUSB** with proprietary USB programming devices

Undergraduate Researcher, University of California, San Diego (Dr. Prasad Gudem)

October 2022 - October 2023

- Created first iteration of an IMU system to track orientation of a boomerang using **embedded C++**
- Developing computer vision algorithm using **OpenCV** in **Python** on drone footage to acquire position
  - Accuracy determined through comparison with position data from other methods

Engineering Intern, Capsulaser

June 2022 - August 2022

- Implementation of simulation test bench for Capsulaser UI
    - **Verilog** coding for 2x Lattice FPGA + 2x Serial NVM based system
  - Optimization of programming algorithm for analog NVM
    - Analysis of experimental results of programming effect vs Programming Pulse Voltage and Duration
    - Modification of embedded C code on programming system (MCU Based) for programming optimization
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## LEADERSHIP / AWARDS

President, UCSD Cycling Team

June 2023 - Present

- Elected position, responsible for directing and running the team as well as communicating with UCSD Sports Clubs Administration.

Best MVP, ECE 140B at UCSD

June 2023

- Worked on Firmware for our first generation home solution in C++ using **PlatformIO**, including **MQTT** communication system between individual devices and our central server
  - Accepted to **Blackstone Launchpad Program** at **The Basement**

Road Captain, UCSD Cycling Team

August 2022 - June 2023

- Elected position, responsible for coordinating team rides, transportation and lodging for race events, and facilitating a healthy team culture encouraging students to ride bikes, go fast, and have fun.

Overall Runner-up, H.A.R.D Hack

April 2023

- Received overall runner-up award in a hackathon at UCSD by working with four colleagues to develop a EMG equipped IoT device to remotely control servos connected to a web server with pages for data dissemination
    - Utilization of ESP32 and Raspberry Pi
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## SKILLS & ACTIVITIES

- Experience with Vivado, Lattice Diamond, ModelSim, PSpice, Java, JavaScript, HTML, CSS, Eagle CAD, MySQL, C++, embedded systems (auto ECUs, ANVM programmer), Linux-based servers, compiling source code, using virtual machines and environments
- Skilled at prototyping electrical circuits, including utilizing laboratory equipment and Arduino microcontrollers
- Design and implementation of performance modifications to BMW cars
  - Turbocharged e46
  - V8 swapped e36
- Native English speaker, conversational Spanish speaker