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

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

SKILLS & ACTIVITIES

- Experience with ROS, Vivado, Lattice Diamond, ModelSim, PSpice, Java, JavaScript, HTML, CSS, Eagle CAD, MySQL, C++, embedded systems (auto ECMs, 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