Mark Diaz

San Francisco, CA • 650-878-7214 • markdiaz@g.ucla.edu • linkedin.com/in/markdiaz1

EDUCATION

University of California, Los Angeles (UCLA) — BS, Computer Engineering *Expected Graduation: June 2026*

- Relevant Coursework: Systems and Signals, Logic Design of Digital Systems, Computer Systems Architecture, Operating Systems Principles, Data Structures and Algorithms, Introduction to Machine Learning

EXPERIENCE

Raytheon Technologies— *Hardware Engineering Intern* **NAS Point Mugu -** *June 2023 - September 2023*

- Designed firmware (**VHDL**) for Artix-7 FPGA with PCIe carrier card and Digital IO module using **Xilinx Vivado** resulting in a **30%** increase in efficiency in the test station as opposed to previous FPGA
- Integrated new FPGA with software (**C++**) by changing the API calls that handled data transferring removing the need for any software engineers to be involved
- Utilized hardware debugging techniques, including analyzing schematics and using a **DMM** / **Oscilloscope**
- Modified and created layout schematics using **OrCAD Capture CIS** to replace flawed drawings saving **hundreds of hours** in labor costs

LawNET IT— *Student Technician* *Sept 2022 – June 2023*

- Collaborated with a team **10** technicians on a ticket-based system to resolve IT issues
- Supported computer hardware maintenance by repairing and replacing computer parts
- Assisted and communicated with **20-30** Law Staff and Faculty each week about varying technology problems

Play-Well TEKnologies — Engineering Instructor *June 2022 - September 2022*

- Taught **14-24** middle school students robotics using Lego EV3 Kits each week
- Created lesson plans to teach robotics using engineering concepts
- Developed leadership and communication skills through teaching

TECHNICAL PROJECTS

SOLES AI – ***Project Lead*** *SOLES | SHPE at UCLA, Fall 2023 -* ***Present***

- Leading a machine learning club with over **30** members in deep learning projects
- Designed workbooks and lesson plans for data science tools such as: **NumPy**, **Pandas**, and **Matplotlib**
- Creating a collaborative environment making AI more accessible to students in SOLES

NASA Robotic Mining Competition: Lunabotics *SOLES | SHPE at UCLA, Fall 2022 -* ***Present***

- Creating a lunar rover with a multi-disciplinary team of **20** engineers
- Programming (**C**) the embedded system utilizing microcontrollers like the Arduino and STM32
- Competing in the NASA Lunabotics competition with over **100** schools

PROFESSIONAL ORGANIZATIONS

- *Center for Excellence in Engineering and Diversity (**CEED**)*
- *Society of Latinx Engineers and Scientists | Society of Hispanic Professional Engineers- UCLA (**SOLES** | **SHPE**)*
- *Institute of Electrical and Electronics Engineers (**IEEE**)*

TECHNICAL SKILLS

- VHDL / Verilog, Vivado, OrCAD Capture CIS, Hardware Debugging, C/C++, OpenMP, Python, Git, Linux / Bash, x86 / Arm Assembly, Spanish

HONORS/AWARDS

- Hispanic Scholarship Federation (June 2022)
- Valedictorian- Capuchino High School (May 2022)
- Rotary International- San Bruno (May 2022)

PERSONAL

- Basketball
- Weightlifting
- Guitar