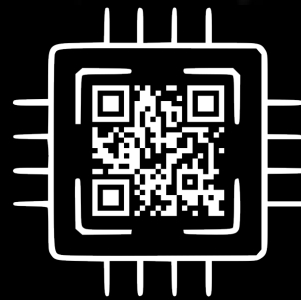


Mario Rodriguez

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Summary

Driven, people-oriented computer science graduate. Adept at motivating self and others. Seeking to leverage exemplary problem solving, analytical, and coding skills. I'm always looking to improve myself and seeking to learn from those around me. I strive for excellence and to elevate those around me by bringing a positive attitude.

Skills & Abilities

Programming

- Python
- C/C++
- Java
- Bash
- HTML5/CSS
- OpenGL

Technologies

- GIT/CI
- Linux (Debian, Kubuntu)
- TensorFlow 2.0
- Apache Airflow
- AWS EC2 instances
- MySQL
- Ansible
- Keras

Bare Metal Skills

- STM32
- Atmega328
- ATtiny85
- RTOS (FreeRTOS)
 - Multi-Threading

Frameworks

- Django
- Flask
- React

Education

CSUSM

September 2019 - December 2021

- Bachelors of Computer Science

Mira Costa Community College

August 2013 - May 2019

- Associates of Liberal Arts

Experience

Tesla

Auto Pilot Silicon Validation Software Developer Intern

January 2021 - August 2021: Palo Alto, CA

- Created data visualization software using **python3** to increase throughput by **10x**. The software took raw BIST data files and batch processed them to create pivot tables that were used to make critical decisions for the Auto Pilot chip. Python Libraries used: **Pandas, Numpy, Matplotlib**
- Created software tool using **python3** and **Ansible** to automatically controlled BIST tests of the Auto Pilot board. This tool initialized the test, monitored the board's status, and would collect the BIST data that would be sent to my custom built data visualization tool using python. I then parallelized the processing with Ansible to increase productivity **5x**. Python Libraries used: **PySerial**
- Improved the previously mentioned software tool by creating a remote machine manager with **python3** that had two way communication using a server client relationship. Improvements included removing the polling implementation and replacing it with an interrupt system. Later on I was introduced to **Apache Airflow** and I migrated over to that instead.

Personal Projects

Raspberry Pi Light Tracker

Designed and constructed a solar tracking device that allows optimal performance of a solar panel by normalizing itself to the sun thus staying in full exposure. Utilizes SPI protocol to interface with photo resistors through MCP3008 Analog to Digital Converter. Servo motors adjust the X and Y tilt on a 3d printed base.

