Mico Guinto

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EDUCATION

University of California, San Diego **Sept 2021 - Jun 2024**

Bachelor of Science in Computer Engineering

San Diego Miramar College **Aug 2019 - May 2021**

Associate of Science in Computer Science | Dean's List (Spring 2021)

PROJECTS

Forward Error Correction Processor **Jan 2023 - Mar 2023**

- Coordinated and designed a specific purpose processor which handled encoding and decoding information under specific architecture limitations and requirements
- Formulated our own MIPS-based assembly language so that programs could be written under limitations
- Devised and programmed the pattern-searching function of the processor which sought out pattern instances that crossed byte boundaries

File Compressor **Nov 2022**

- Implemented a file compressor by using Huffman coding to reduce sizes of files containing items in the ASCII Table using C++
- Improved the efficiency of the program by taking the frequency approach in writing a file header for the compressed file

Arduino Based Line-Following Robot Car **Aug 2022**

- Cooperated with a group of three to design and develop a small self-driving car that uses photoresistors to steer in the correct direction
- Improved the weight distribution of components by utilizing every space possible within the chassis
- Resolved the potentiometer reactiveness issue by enhancing the python script to compensate for its hypersensitivity

Apparition Analyzer **Aug 2021**

- Built a device that would indicate the proximity of an object using an ultrasonic sensor
- Combined ultrasonic and temperature sensors with an Adafruit Metro M0 microcontroller
- Utilized Python to adjust frequency of output signal by the ultrasonic sensor

catHead **Feb 2018 - May 2018**

- Collaborated with a partner and created a simple one boss game from the ground up inspired by different games of the same genre using Java and the libGDX library
- Enhanced user experience by balancing the gameplay extensively in order to ensure users enjoyed the game while keeping the game challenging

SKILLS

Languages: C++, Java, SystemVerilog, MATLAB, MIPS, Python

Tools: VSCode, Github