ALEX MILLAN

CONTACT INFO

Cell

714.270.5178

GitHub

github.com/Alex-Millan

Email

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COMPUTER SKILLS

Operating Systems

Windows
Mac
Linux

Applications

SolidWorks
Git
V-REP
Android Studios
PSoC Creator

Languages

C	Expert
Java	Proficient
C++	Intermediate
MATLAB	Novice
Python	Novice

Hardware/Technical Skills

Raspberry Pi
STM32
Arduino
UART/SPI/USB-communication
Soldering
Oscilloscope
sine wave generator
NFC

EDUCATION

University Of California Santa Cruz

Bachelor of Science in Robotics Engineering — June 2018

Relevant Coursework

- Introduction to Mechatronics
- Microprocessor System Designs
- Algorithm & Abstract Data Types
- Engineering Design Project I & II

PROJECTS

Autonomous Vehicle

Built an 11″ x 11″ x 11″ autonomous vehicle with an electrical and mechanical team of 3. Programmed and debugged a hierarchical state machine in an embedded system. Built vehicle's frame in SolidWorks. Programmed in C.

Oscilloscope Project

Designed an oscilloscope with 2 microcontrollers. Communication between the two devices was done using a USB protocol. Applied Nyquist Theorem to get maximum data transfer rate. Programmed in C

Lock System

Designed and built a robust lock system containing NFC, keypad, and Wi-Fi for cloud connectivity with a team of 3. Implemented UART and SPI communication protocols. Emphasis on low-power consumption lock. Unit tested software modules. Programmed in C.

EXPERIENCE

Stem Peer Mentor, Mesa Engineering Program

Ucsc, Santa Cruz, Ca — *September 2016 – June 2018*

- Hosted academic events containing 192 undergraduate students.
- Participated and communicated in biweekly staff meetings which increased collaborative

Microprocessor System Design Group Tutor

Ucsc, Santa Cruz, Ca — *March 2018 – June 2018*

- Explained design tradeoff to students.

COMMUNITY

Project Chair For Society Of Hispanic Professional Engineers Club

- Demonstrated electrical and computer engineering projects to members which increase enthusiasm in getting a STEM degree.