

CORY MAYER

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EDUCATION

California Polytechnic State University - San Luis Obispo, CA

MS Computer Science, BS Computer Engineering | Graduation: **December 2018**

Mechatronics, Mobile App Development (TA), Computer Networks (TA), Computer Graphics, Operating Systems, Systems Programming, Computer Architecture, Algorithms, Circuit Analysis, Digital Design.

PROFESSIONAL EXPERIENCE

Amazon Lab126

Jun 2018 - present

Firmware Engineer, Firmware Engineer Intern

Sunnyvale, CA

C, Embedded Systems, RTOS, iOS, AWS, Node.js, Python

Develop and design firmware for production-ready device concepts, and develop iOS apps to provide a user experience representative of the final product's application.

Bishop Peak Technology, Inc

Apr 2017 - Dec 2018

Systems Integration Engineer

San Luis Obispo, CA

C++, Python, Embedded Systems, iOS, Android, PHP, MySQL, Javascript

Designed and implemented embedded systems to integrate with public transport vehicle systems, maintained iOS and Android applications, and developed and tested new features for web applications.

5D Robotics, Inc

Summer 2016

Robotics Software Engineer Intern

Carlsbad, CA

C++, Robotics Operating System, Android, Python, OBD-II

Developed software for commercial robots, and developed an Android app to display system stats in real time.

Tapestry Solutions, Inc, A Boeing Company

2016 - 2017

Software Developer I - Part Time

San Luis Obispo, CA

Java, ActionScript

Worked on a team of developers to fix bugs and implement new functionality for logistics software.

PROJECTS

Bluetooth Car Key - Embedded Software/iOS App

2019

Personal project

Inspired by the Tesla phone key, I designed and prototyped a system with security in mind to automatically unlock my car when I got close to it with my phone using Bluetooth Low Energy and the ChaChaPoly cipher.

Improving UWB Localization by Detecting Radio Misclassification - ML Application

2018

Masters thesis

Trained machine learning models to detect corner cases where ultra-wideband radios would fail to detect multi-path interference and designed an experiment to collect the data.

Reflow Toaster Oven - PCB Design/Embedded Software

2017

Class project

Member of team that designed a custom PCB board with a microcontroller running FreeRTOS to control a toaster oven using temperature profiles.

HomeKit Garage Door Opener - Open Source Plugin

2017

Personal project

Developed a plugin for an open source project to control a garage door remotely using custom hardware.

COMMUNITY ACTIVITIES/INVOLVEMENT

Cal Poly University Bands Member, 2013-2018

Spirit of Sunnyvale Marching Band, 2019-2020