

# ALEX MILLAN

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## EXPERIENCE

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### Software Engineer

February 2019 - Present

Carl Zeiss Meditec, Dublin, CA

- Led and developed embedded medical devices capable of acquiring and processing images at 128 FPS
- Implemented automated eye alignment in medical devices by integrating a deep learning library.
- Collaborated with offshore team to speed up product release time by 46%
- Documented software requirements for release of new medical devices.

### Peer Mentor

September 2016 - June 2018

University of California, Santa Cruz

- Mentored 192 undergraduates in staying on track to graduate by hosting academic events and communicating with each individual.
- Sent out weekly newsletter and discussed students' progress in biweekly staff meetings.

## PROJECTS

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### Autonomous Vehicle

- Built an autonomous vehicle capable of loading, launching, and tracking ping-pong balls.
- Programmed and debugged a hierarchical state machine in an embedded system.
- Built vehicle's frame in SolidWorks.

### Robotic Assembly Line Simulation

- Simulated the maximum throughput of an assembly line with robots that stacked boxes.
- We then discovered the critical robot which slows down the production the most.
- All robots had an overlapping workspace so that any robot could take over the fallen robots task.

### Lock Project

- Designed, budgeted and constructed a University lock system which operated with 4 AA batteries.
- Door Lock opened with NFC or keypad entry
- Communications between the NFC and WiFi hardware was done using UART and SPI respectively.

## EDUCATION

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### Bachelors of Science in Robotics Engineering

June 2018

University of California, Santa Cruz

## COMPUTER SKILLS

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### Applications

Azure DevOps, GitHub, SolidWorks

### Languages

C++, Python, C#, Java

### Microcontroller

Raspberry Pi, PSoC, Arduino, STM32, Jetson Nano

### Technical Skills

Logic Analyzer, Soldering, I2C, Parallel Programming, Agile