## Kadyn Martinez

Robotics Software Engineer

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#### **EDUCATION**

## **Computer Science**San Francisco State University

07/2015 - 05/2017

San francisco, CA

#### Computer Science Chico State University

01/2022 - Present

Chico, CA

Courses

RoboticsMachine Learning

#### **WORK EXPERIENCE**

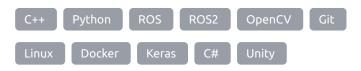
# **Computer Vision / Robotics Software Engineer**Simbe Robotics

10/2016 - 07/2020 San Francisco, CA Robotics as a Service developing solutions for retail analytics and automation

Achievements/Tasks

- Integrated modified versions of models into pipeline deemed to be successful when trained on simbe domain datasets.
- Iterative improvements to models and detection workflow, decreasing computation time by 80% with minimal loss in accuracy.
- Created evaluation service to compare models and weights agnostically on key metrics including time, accuracy, and resource usage to ensure > 90% accuracy for most use cases.
- Created tooling for synthetic data creating to supplement limited data availability.
- Developed ROS packages in C++ and python currently in use on production robots.
- Developed ROS package for monitoring robot health via sensor feedback. Robot responded with HRI behaviors in response to feedback.
- Developed robust feedback loop for changes in our pipeline to prevent unknown failure at scale.
- Created flask services to process pipeline output and generate deliverables so customers can get their output immediately as it was available.

### **SKILLS**



### **PERSONAL PROJECTS**

#### W357: Mech warfare combat quadruped

- Designed hardware from scratch in Fusion360 and 3d printed iterating on failure points as build progressed.
- Developed packages to enable dual pilot mechanisms from 3 locally distributed computers.

## Logibot: Last mile logistic robot for campus oriented delivery

- Outdoor navigation robot developed in ROS2 and ROS1 as needed.
- Customer focused product development cycles based on delivering a pizza to spots on campus.

#### CARA: Self driving RC Car

- Designed and built systems for a Self-driving RC car for use in DIY RoboCars competitions.
- Modified an existing RC car protocol to replicate it and control it via
- Implemented rudimentary lane detection.

### **ORGANIZATIONS**

ACM SFSU (07/2015 - 05/2017)

Computer Animation and Game Design Club CSUC (01/2022 - Present)

### **INTERESTS**

Cute Robots Learning Languages

Competitive Video Games Fighting Games

Game Development 3D Modeling