Ahmed Muni

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SUMMARY

A systems engineer with co-op experience in robotics and automation. An excellent team member, self-starter, quick learner, and Tony Stark enthusiast.

LANGUAGES

Python, C, C++, JavaScript
Flutter/Dart, HTML, CSS

FRAMEWORKS & LIBRARIES

OpenCV, ROS2, React.js, Node.js, Express.js, MongoDB, jQuery, Bootstrap

TOOLS & SOFTWARE

SOLIDWORKS, Fusion 360, Linux, VSCode, MATLAB, KiCad

EDUCATION

BSc in Engineering Systems and Computing
University of Guelph - 2021

RELEVANT COURSES

Data Structures & Algorithms, Object Oriented Programming, Large Scale Software Architecture, Complex Systems, Signal Processing, Robotic Systems, Linear Algebra, Systems and Control Theory

WORK EXPERIENCE

Robotics Engineer   May 2019 - Aug 2019

s2e Technologies | Waterloo, ON

Tech stack: Python, OpenCV, Autonomous Vehicles

- **Acquired $1M in partner funding** through **autonomous vehicle** project proposal for **EVE Park project** 🔗
- Lead development of POC for offboard autonomous vehicle guidance system that resulted in a **assessment success rate of 97.4%**
- Designed guidance system using **OpenCV** and **Python** which tracked positions of vehicle and environmental hazards to safely guide the vehicle
- Constructed assessment site for autonomous vehicle prototype testing

PROJECTS

Capstone Project - Autonomous Vaccine Preparation Device

- Designed a device that autonomously fills syringes directly from vial to increase vaccination speed, with an interdisciplinary engineering team
- Utilized **KiCad** to design electrical schematics of device
- Developed CAD model of device using **SOLIDWORKS**

Six-Axis Robotic Arms Labs

Tech stack: Python, OpenCV

- Developed software in **Python** and **OpenCV** to manipulate Fanuc, Kuka, and Baxter **robotic arms** to complete several unique tasks
- Designed and implemented control algorithms on robot to find and pick up objects, accurately stack them or place them into a container, and write text with a marker onto a sheet of paper
- Utilized Kuka smartPAD to control and program Kuka robotic arm

BUSINESSES

Anvil - Phone Repair Business

- Started and operated a phone repair business
- Conducted over 60+ repairs and business transactions
- Provided problem solving and troubleshooting to deduce issues with damaged phones
- Presented and effectively explained repair requirements to clients