Trevor Sherrard

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Professional Summary

Robotics Engineering graduate student seeking an internship/Co-Op opportunity in the industrial automation, software, mobile robotics, or imaging science industries. Available to start Immediately.

Work Experience

May 2019 – March 2020

Calvary Robotics

Controls Software Co-Op

Developed OpenCV based vision inspection applications for collaborative robotics material handling systems. Fortified existing vision applications for use in various lighting conditions. Implemented Ignition Designer SCADA applications.

January 2018 – February 2019

R.I.T

ROS Software Architect

Was responsible for creating a distributed software architecture using robot operating system for a multi-agent intelligent material handling system grant project. Participated in gated reviews of implemented software.

May 2018 – August 2018

Calvary Robotics

Controls Software Co-Op

Architected, implemented, and tested an embedded, OPC UA based, industrial internet of things (IIoT) performance tracking software platform for industrial manufacturing machines. Aided in the development of Keyence and Cognex based vision inspection applications.

May 2017 – December 2017

D3 Engineering

Embedded Software Co-Op

Developed board support software and various device drivers for multi-core embedded advanced driver assistance systems. Prototyped various image processing pipelines using OpenCV. Designed and performed various tests to verify RTOS software functionality.

January 2017 – May 2017

Alstom Signaling

Train Signaling Engineering Co-Op

Responsible for writing installation and cut-over plans based off of electrical schematics for train control rooms.

Education

2020 – 2022 **Worcester Polytechnic Institute**
M.S Robotics Engineering

2015 – 2020 **Rochester Institute of Technology**
B.S Electrical Engineering
GPA: 3.25

Robotics Projects

2018 **Kudos (http://bit.ly/Kudos2018)**
A differential drive robot making use of a distributed ROS architecture and an exploratory SLAM algorithm to map out unknown spaces.

2016 **ToolID (http://bit.ly/ToolID2016)**
Automatic tool identification for the computer science house woodshop.

Computer Vision Projects

2018 **RIT SPEX HAB Horizon Detection (http://bit.ly/RITHAB2018)**
A CLI application using OpenCV to detect the earth's horizon in images taken from a high altitude balloon. This code ran on a Raspberry Pi at 60,000+ feet.

2015 **CSH Augmented Reality Logo (http://bit.ly/ARCSH)**
An Augmented Reality project for the Computer Science House at RIT.

Technical Skills

Advanced level	C, C++, ROS, OpenCV, Python, Machine Vision, Embedded Systems, OPCUA
Intermediate level	SLAM, LiDAR, Tensorflow, Keras, Git, PLC Programming, IIOT, Ignition Platform, SQL, MATLAB
Basic level	RTOS, LaTeX, Verilog, mmWave Radar, Kuka, Imaging Science