

# Trevor Sherrard

## CONTACT ME

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## SUMMARY

I am a roboticist, and machine vision enthusiast. I am a fourth year electrical engineering student at Rochester Institute of Technology. I am currently seeking a Co-Op for Summer 2018.

## WORK EXPERIENCE

JANUARY 2018 – PRESENT

### R.I.T *ROS Software Architect*

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 2017 – DECEMBER 2017

### D3 Engineering *Embedded Software Co-Op*

Developed board support software and various device drivers for multicore 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 in the Metropolitan Atlanta Rapid Transit Authority system.

## EDUCATION

2015 – PRESENT **Rochester Institute of Technology**  
B.S ELECTRICAL ENGINEERING; ROBOTICS  
*Computer Science House*

2014 – 2015 **Cuyahoga Community College**  
COMMUNITY COLLEGE  
*Physics Club*

## ROBOTICS PROJECTS

- 2017 **Kudos** (<http://www.trevorsherrard.com/html/Kudos.html>)  
*A differential drive robot making use of a distributed ROS architecture and an exploratory SLAM algorithm to map out unknown spaces.*
- 2015 **ToolID** (<http://www.trevorsherrard.com/html/ToolID.html>)  
*Automatic tool identification for the computer science house woodshop.*
- 2014 **SortME** (<http://www.trevorsherrard.com/html/SortME.html>)  
*My Computer Vision Robot Platform*

## COMPUTER VISION PROJECTS

- 2017 **RIT SPEX HAB Horizon Detection** (<http://www.trevorsherrard.com/html/ComputerVision.html>)  
*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.*
- 2016 **HAAR Training Tutorial Web Page** ([http://www.trevorsherrard.com/html/Haar\\_training.html](http://www.trevorsherrard.com/html/Haar_training.html))  
*A tutorial I wrote on how to train HAAR classifiers using OpenCV. It covers everything from sample preparation to training itself.*
- 2015 **CSH Augmented Reality Logo** (<https://youtu.be/dx1Ek2E-DCk>)  
*An Augmented Reality project for the Computer Science House at RIT.*

## PROFESSIONAL SKILLS

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|--------------------|--|
| ADVANCED LEVEL     | C, C++, ROS, OpenCV, Python, SPI and I2C protocols   |
| INTERMEDIATE LEVEL | SLAM, LiDAR, Imaging Science, Embedded Linux, Git    |
| BASIC LEVEL        | Torch, Caffe, RTOS, $\LaTeX$ , Verilog, mmWave Radar |

## RELEVANT COURSES

|                 |   |
|-----------------|---|
| ELECTRICAL ENG. | Digital Systems I and II, Embedded Systems Design |
| ROBOTICS        | Robotics Systems, Advanced Programming            |