

# Trevor Sherrard

## CONTACT ME

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## SUMMARY

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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

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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

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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

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- 2018 **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.*
- 2016 **ToolID** (<http://www.trevorsherrard.com/html/ToolID.html>)  
*Automatic tool identification for the computer science house woodshop.*
- 2015 **SortME** (<http://www.trevorsherrard.com/html/SortME.html>)  
*A basic computer vision robot.*

## COMPUTER VISION PROJECTS

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- 2018 **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.*
- 2017 **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.*

## TECHNICAL 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

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