# Michael Shullick

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# **FDUCATION**

# ROCHESTER INSTITUTE OF TECHNOLOGY

BS/MS IN COMPUTER ENGINEERING

Expected May 2019 | Rochester, NY GPA: 3.6 / 4.0 Honors, Dean's List, Presidential Scholarship

#### Lab Courses

Assembly Language Programming Circuit Analysis I & II Computer Science I & II Digital System Design I & II Electronics I Interface & Digital Electronics

# LINKS

Portfolio: shullick.net Github://shoelick LinkedIn://mshullick

# SKILLS

#### **PROGRAMMING**

Languages
C++ • C • VHDL
ARM Cortex-M0+ Assembly
Python • Java • C#
Javascript • PHP • CSS

#### Tools:

ROS • OpenCV Machine Learning • ETEX Octave • Bash

#### **HARDWARE**

Oscilliscopes • FPGAs Digital Logic Circuit Design Numerous Development Boards

#### **SOFTWARE**

Altera Quartus II Xilinx ISE • Modelsim Keil µVision • IAR Workbench Linux • Subversion • Git IntelliJ • PyCharm • Netbeans PTC Creo • Autodesk Inventor Solidworks

## **OBJECTIVE**

An engineering internship for the summer of 2017. Seeking experience with hardware design and machine learning.

# **EXPERIENCE**

#### **ROCKWELL AUTOMATION**

EMBEDDED SOFTWARE ENGINEER - CO-OP

May 2016 - Jan 2017 | Mayfield Heights, OH

- Maintained prototype firmware for next generation of I/O modules, including driver development and implementing tests for EMC verification.
- Contributed to general firmware development of safety-certified next-generation PLC I/O modules on an international team of developers.
- Served as co-project manager of co-op led Career Fair Project: a checkers-playing robot gantry. Responsibilities included maintaining project timelines and communication between team, managers, and vendors.
- Designed a simple machine vision API and gained experience sizing motors and gearboxes based on a system's torque and inertia requirements.

#### ROCHESTER INSTITUTE OF TECHNOLOGY

TEACHING ASSISTANT FOR DIGITAL SYSTEMS DESIGN I Jan 2016 - May 2016 | Rochester, NY STUDENT LAB INSTRUCTOR FOR CS I - PYTHON Aug 2015 - Dec 2015 | Rochester, NY

#### **FORCE ROBOTS, LLC**

SOFTWARE DEVELOPMENT INTERN

May 2015 - Aug 2015 | Cleveland, OH

- Contributed to both backend and frontend software development for an articulate robot designed to finish casted and machined components.
- Independently developed a specialized JQuery plugin for graphing data useful to robot programming.
- Made deployment of code easier by setting up CMake with a large project and creating a distributable package.

### RIT - NATIONAL TECHNICAL INSTITUTE OF THE DEAF

VIDEO PRODUCTION ASSISTANT

Sep 2014 - May 2015 | Rochester, NY

- Edited deaf-oriented productions using Final Cut Pro and Adobe Premier
- Live-event camera operator
- Provided general troubleshooting and support between software updates

# **PROJECTS**

# CUSTOM ROBOT ARM | PERSONAL SIDE PROJECT

August 2015 - September 2016

Independently designed and fabricated a robot arm driven by a Raspberry Pi running ROS. Mechanical design based on ABB Palletpack. Learned how to train OpenCV cascade classifiers to identify chess pieces for potential robot application.

#### MINDCLOUD IDEA NETWORK | IMAGINERIT EXHIBIT

Jan 2015 - May 2015 | Rochester, NY

Lead development of a website similar to Quora, but focused on market discovery and product innovation. Built from scratch a PHP-based MVC backend and a frontend based on Foundation. Presented at RIT's Creativity and Innovation festival.