



EDUCATION	Rochester Institute of Technology, Rochester, NY BS in Computer Engineering Minor: Mathematics Expected Graduation Date: May 2018
COURSES	Computer Science I & II, Applied Programming in C Digital Systems Design I & II, Assembly Programming Machine Intelligence Convolutional Neural Networks for Image Recognition (Machine Intelligence Lab, RIT)
SKILLS	<p><b>PROGRAMMING LANGUAGES</b> Proficient with: C/C++, Python, Java, VHDL Familiar with: Swift, Verilog, PHP, JavaScript, MySQL, C#, Matlab, HTML, CSS</p> <p><b>SOFTWARE AND DEVELOPMENT TOOLS</b> Proficient with: Tensorflow, IntelliJ IDEA, Eclipse, Android Studio, Git, CVS, Unity3D, XCode Familiar with: CUDA, OpenGL, OpenCV, Vuforia, Wikitude, Cadence OrCAD, PSpice, Xilinx Vivado, Altera Quartus, Multisim, Torch, Caffe</p> <p><b>OPERATING SYSTEMS</b> Proficient with: Linux, Mac OS, Windows</p> <p><b>HARDWARE</b> Proficient with: Oscilloscope, Function Generator, Multimeter, Spectrum Analyzer, Breadboard, Soldering Familiar with: Xilinx Nexys 3 FPGA Board, Beaglebone Black, Raspberry Pi, NVIDIA Jetson TX1</p>
HONORS	NSF I-Corps Funding Recipient Nominated for RIT Outstanding International Student Award 2015 RIT International Scholarship
LEADERSHIP	RIT ACM SIGCHI (Vice Chair) - 2015 RIT World Music Ensemble Multidisciplinary Robotics Club (MDRC) RIT Emerging Professionals Leadership Certificate Volunteering at Mentaidd and Hope Home Education Center – Calcutta, India Peace Ambassador for APCC 2011 – Fukuoka, Japan

## EXPERIENCE

### RESEARCH ASSISTANT

Center on Access Technology, NTID, RIT | Rochester, NY  
September 2016 - Present

- Develop research tools for Deaf/Hard of Hearing Access Technology research projects
- Technologies used: Android Development, Node.js

### RESEARCH ASSISTANT

FETLab, GCCIS, RIT | Rochester, NY;  
September 2015 - December 2015; August 2016 - Present

- Build an automatic speech recognition system that classifies sounds of actions on everyday objects. Research domain: Human Computer Interaction and Ubiquitous Computing
- Technologies used: Python, Tensorflow, Android, Scikit-Learn

### DEEP LEARNING ENGINEERING INTERN

NextDroid (Startup) | Boston, MA  
June 2016 - August 2016

- Wrote neural network models for road image segmentation for a semi-autonomous/self-driving car
- Wrote image segmentation web interface for mass data collection that decreased data collection cost by 60%
- Technologies used: Caffe, Tensorflow, Torch, CUDA, NVIDIA Jetson TX1, NVIDIA DRIVE PX, Python, C++, Lua

### COMPUTER VISION DEVELOPER (Co-op)

Ahold USA | Quincy, MA  
January 2016 - May 2016

- Used tensorflow and caffe to do transfer learning for product package recognition
- Developed an augmented reality iOS app that gives a location-aware shopping experience

### COMPUTER VISION RESEARCH ASSISTANT

Discover Lab, School of Media Sciences, RIT | Rochester, NY  
June 2015 - December 2015

- Developed, debugged, and optimized an augmented reality app, called RocreadAR for a research project aiming at integrating different media for publishing and communication.
- Technologies used: OpenGL, OpenCV, Unity3D, Vuforia SDK, Wikitude SDK, Git, Android, iOS, Google Glass

### SUPPLEMENTAL INSTRUCTION LEADER

Academic Support Center, RIT | Rochester, NY  
January 2015 - May 2015

- Conducted an hour long study session twice a week, through the last day of classes, to guide students with historically difficult courses (courses with high rates of D, F and withdrawal)
- Engaged with faculty partner and devised SI session strategies using different learning techniques

## PROJECTS

### OPEN SOURCE CONTRIBUTIONS IN DEEP LEARNING RESEARCH

TensorFlow - Solved bug in Android Demo. Issue #1371  
TensorFlow - Implement Max Unpooling Op - Issue #2169  
elab/Torch7-profiling -Solved bug-Commit #7fdb7af and #0e64c08  
elab/ENet-Training - Improved code - Pull request #9

### ARESUME

Access at Google Play Store: [www.goo.gl/yUDUu9](http://www.goo.gl/yUDUu9)

An Augmented Reality android app that gives a fun and interactive resume reviewing experience. Made using Unity3D, Vuforia SDK, and Android Studio. This resume is augmented reality enabled!

### CLICK WARS - RIT IOS APP CHALLENGE HACKATHON 2015

Access at: [www.goo.gl/4qX6sA](http://www.goo.gl/4qX6sA)

A game based app called "Click-Wars" that uses face detection and bluetooth to connect multiple players to play a game of who can click each others face faster.

### RESEARCH ON TRIAL DIVISION VS LUCAS-LEHMER ALGORITHM

Access at: [www.goo.gl/ZoVC3h](http://www.goo.gl/ZoVC3h)

Research question: Out of trial division algorithm for finding primes and Lucas-Lehmer algorithm for finding Mersenne primes, which algorithm would yield a big prime number faster?

### PATTERNS IN COMPLEX NUMBERS

Access at: [www.goo.gl/MgwgWS](http://www.goo.gl/MgwgWS)

Analyzed the patterns in the complex solutions of polynomial equations of n order and portrayed on the complex plane. Formed a conjecture involving regular polygons.