



**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, Deep Learning  
Operating Systems, Reconfigurable Computing (FPGA)  
Combinatorial Game Theory, Numerical Analysis  
Circuits I & II, Electronics I, Digital Signal Processing

**SKILLS**

**PROGRAMMING LANGUAGES**  
Proficient with: C/C++, Python, Java, VHDL, ARM Assembly  
Familiar with: SystemVerilog, PHP, JavaScript, Swift, MySQL, C#, Matlab, HTML, CSS

**SOFTWARE AND DEVELOPMENT TOOLS**  
Proficient with: Tensorflow, Caffe2, Android Studio, Git, Docker, CVS, Unity3D, XCode  
Familiar with: CUDA, OpenGL, OpenCV, Cadence OrCAD, PSpice, Xilinx Vivado, Multisim, Torch, Caffe, PyTorch, React

**OPERATING SYSTEMS**  
Proficient with: Linux, Mac OS, Windows

**HARDWARE**  
Proficient with: Oscilloscope, Function Generator, Multimeter, Spectrum Analyzer, Breadboard, Soldering  
Familiar with: Xilinx Nexys4 DDR FPGA Board, Beaglebone Black, Raspberry Pi, NVIDIA Jetson TX2

**HONORS** NSF I-Corps Funding Recipient  
Nominated for RIT Outstanding International Student Award 2015  
RIT International Scholarship

**RESEARCH/ PUBLICATIONS** **One Shot Learning for Acoustic Recognition** - Western New York Image and Signal Processing Workshop 2016  
**User Experiences When Testing a Messaging App for Communication Between Individuals who are Hearing and Deaf or Hard of Hearing** - ACM ASSETS 2017  
**Using Automatic Speech Recognition to Facilitate Communication Between an Individual who is Hearing and One who is Deaf or Hard of Hearing** - ACM ASSETS 2017

**EXPERIENCE**

**RESEARCH ASSISTANT**

Center on Access Technology, NTID, RIT | Rochester, NY  
September 2016 - May 2017; August 2017 - Present

- Develop research tools for Deaf/Hard of Hearing Access Technology research projects - Speech/Video to Text etc.
- Technologies used: Android Development, Node.js, TensorFlow

**DEEP LEARNING SOFTWARE INTERN**

NVIDIA Corporation | DL Frameworks Team | Santa Clara, CA  
May 2017 - August 2017

- Designed and implemented Universal Framework Format (UFF) Converters for TensorFlow and Caffe2, released in TensorRT 3.0
- Wrote Sequence to Sequence Framework for Caffe2 and made kernel optimizations
- Technologies used: C++, Python, Protobuf, CUDA, Caffe2, TensorFlow

**RESEARCH ASSISTANT**

FETLab, GCCIS, RIT | Rochester, NY  
September 2015 - December 2015; August 2016 - May 2017

- Built 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 RereadAR 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

**OMEN: AN OPEN SOURCE HARDWARE/SOFTWARE CO-DESIGN FRAMEWORK FOR DEVELOPING HARDWARE ACCELERATORS FOR MACHINE INTELLIGENCE (in progress)**

Writing Systolic/Wavefront Architecture in VHDL for RNNs  
Writing Device API to support Deep Learning Frameworks in FPGA

**REAL TIME AMERICAN SIGN LANGUAGE VIDEO CAPTIONING**

Access at GTC 2017: [www.goo.gl/2f3ZyQ](http://www.goo.gl/2f3ZyQ)  
Implemented Sequence to Sequence Neural Network for translating American Sign Language video to text. Presented at GPU Tech Conference 2017.

**OPEN SOURCE CONTRIBUTIONS IN DEEP LEARNING RESEARCH**

Caffe2 - Solved several bugs in Seq2Seq. Commit #35dc34  
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/RNB2Tx](http://www.goo.gl/RNB2Tx)  
An Augmented Reality android app that gives an interactive resume reviewing experience. Made using Unity3D, Vuforia SDK, and Android Studio. Point your phone at the top-left corner of this

**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.

**PROJECTS**