# RYAN RAZANI

ryan.razani@mail.mcgill.ca ⋄ 514.582.7834 ⋄ rnri.github.io ⋄ linkedin.com/in/rnri

## EDUCATION

**McGill University, Montreal, QC** 2014-2017
Masters in Electrical and Computer Engineering
CGPA: 3.6/4.0

**Ryerson University , Toronto, ON** 2008-2014
Bachelors in Electrical  Computer Engineering

## CARRIER OBJECTIVE

To work for an self-driving technology company which provides me the opportunity to improve my skills and knowledge to grow along with the organization objective

## PROJECTS

**Speech Enhancement using a reduced complexity MFCC-based deep neural network**

**Image Classification on Imagenet, MNIST and Cifar-10 in Pytorch, Keras**

**Character-level language model for text generation in python, Tensorflow**

**Implementing object detection technique on a car detection dataset, Python**

## TECHNICAL STRENGTHS

**Programming & Software** Python, NumPy, TensorFlow, Keras, Pytorch, Theano, Matlab, C, Java, C++, Github,Git, ROS, Linux, Simulink, Unity

## WORK EXPERIENCE

**Huawei Noah's Ark Lab, Toronto, ON** May 2019 - Present
*Perception, ML Research Engineer*

· Worked on 3D Lidar point cloud/image segmentation for perception system
· Familiar with 3D Lidar point cloud/image object detection
· Collaborated on self-driving perception pipeline and deployed it on an Huawei's autonomous vehicle
· Collaborated on a point cloud classification conference paper (under review)
· Preparing scientific demonstration for the research results (TF)

**Huawei Noah's Ark Lab, Montreal,QC** Sep 2018 - Mar 2019
*Machine Learning Research Engineer*

· Trained MobileNet and quantized VGG-like model and deployed on an Android device (Keras, TF)
· Conducted research on Quantization techniques of model compression for CNN
· Published scientific demonstration for the research results as arXiv and in process of submitting to a top-tier computer vision conference
· Filed a patent and delivered the project to china HQ to be deployed in the product

**WealthTab Inc., Toronto, ON** Mar 2018 - May 2018
*Machine Learning Developer*

· Built a NLP (Natural Language Processing) Named Entity Recognizer to extract information from various insurance policy documents in Python

**Nuance Communications Inc., Montreal, QC** Jan 2017 - Aug 2017
*Machine Learning Developer*

- Natural Language Understanding, Directed Dialogs grammar development in VoiceXML
- Voice Recognition system optimization and data analysis
- Predictive model analysis, including preprocessing for classification task, SciKit, Theano
- Improved Voice Biometrics Fraudster detection tuning tool in Python

**Imprivata Inc., Lexington, MA, US** Summer 2016
*RD Intern*

- Investigated real-time locating systems, Time of Flight technique for secure walkaway
- Implemented Bluetooth Low Energy CSRMesh network interacting with the Android app
- Designed and developed wheeled device kinetic powered BLE radio prototype

**McGill University, Montreal, QC**

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| *Webmaster:* McGill IEEE student branch committee | 2016-2017 |
| *Grader:* ECSE 322-Computer Engineering | 2016-2016 |
| *Website Management Assistant* | 2015-2016 |
| *Grader:* ECSE 305-Probability and Random Signals I | 2015-2016 |
| *Research Assistant:* Deep neural network for speech enhancement | 2014-2017 |

**Ryerson University** Summer 2013
*Research Assistant*

- Implemented Centralized Sparse Representation for Image Restoration and image de-noising

**Celestica Inc., Toronto, ON** 2011-2012
*IT Business Operation Analyst*

- Maintained Celestica IT Intranet page, created and published IT new
- Generated monthly headcount and effort summary report for IT monthly operating review
- Created Online ID Request Form, designed and developed the IT Business operations website
- Robot workshop at Ontario Science Centre (volunteering)

**Private Tutor, Qualified Tutors, Active Learning Institute, Toronto, ON** 2011-2012

- Tutored high school and university students in Math, Physics, Chemistry and Electronics

## AWARDS

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|---|---|
| Achieved outstanding Team Award at Huawei, Montreal research lab | Dec 2018 |
| Published a conference paper at IEEE, ISSPIT in Bilbao, Spain | Dec 2017 |
| Winner of the most innovative hack, Imprivata | 2016-2017 |
| Dean's List, Ryerson University | 2013-2014 |
| The second winner of CCECE, IEEE HIC competition | 2013-2014 |
| Awarded two Bravo prizes from Celestica Inc. | 2011-2012 |
| First place award in consulting Engineering competition, Ryerson | 2010-2011 |
| The holder of world champion gold medal in Tai Chi, China | 2002 & 2005 |

## PERSONAL TRAITS

Problem solver, flexible, able to work in fast-paced environments and excellent time-management skills