
Technical Skills

Programming: Python, C++, C, L^AT_EX, MATLAB, SQL, Java

Machine Learning Frameworks : Tensorflow, Scikit-learn, Numpy, Scipy, Keras, PyTorch

Software and Hardware : OS, Computer Networking, Computer Organization, Assembly Language, Verilog

Experience

Systems Test Engineer Intern

Toronto, ON

Under NDA

August 2015 – December 2015

- Tested and documented a cloud platform for medical imaging repository
- Developed test cases, security and performance specifications and summarized results in JIRA

Research Student

Toronto, ON

Sunnybrook Reserach Institute

January 2015 – April 2015

- Designed an in-vivo simulation platform with radiofrequency(RF) generator, EEPROM, and RF ablation wire
 - Programmed Douglas-Peucker Algorithm in MATLAB to verify RF ablation data and circuit parameters
 - Rated top10 among all summer research intern presentations at Sunnybrook's first science outreach event
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Machine Learning Projects

Deep Learning Approach to Accent Classification

GITHUB

- Developed feature extraction from raw audio .wav files to formants, MFCCs, and spectrograms
- Classified accents of the audio with RNN and CNN, achieved x test accuracy
- Programmed CNN filter visualization and RNN heatmap to examine what the network finds most prevalent to accent classification and compare with linguistic definitions

Artificial Intelligence

GITHUB

- Programmed path finding algorithms, game tree with alpha-beta pruning, and Hidden Markov Model
- Programmed an abstract Constraint Satisfaction Problem(CSP) class in Python to solve Sudoku and n-queens

Machine Learning Algorithms

GITHUB

- Solved hand written digit recognition problem with Naive Bayes, Bayes with injected beta prior, and Bayes with Gaussian prior models without scikit-learn library, achieved 90% test accuracy
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Other Software Projects

Cybersecurity Project

Implemented C and Assembly language memory exploit to obtain root access

a secure communication network socket in OpenSSL and verification of HMAC and SHA1 in C

Data Science: Utilized googleVis and R to illustrate data with an interactive map, obtained Coursera certificate

Education

Université de Montréal

Montréal, QC

Candidate for a Master of Computer Science(MS)

2018 – 2020

- A member of Montreal Institute of Learning Algorithm(MILA) lab, awarded \$5,000 scholarship
- Concentration on machine learning and deep learning

University of Toronto

Toronto, ON

Bachelor of Computer Engineering

2014 – 2018

> Cumulative Avg: 3.21/4.0, 77.9%, B+

> Honours: 3 semesters

> Student club exec and hackthon organizer

> CSC384 // Artificial Intelligence: 94% A+

> ECE345 // Algorithm and Data Structure: A-

> CSC411 // Machine Learning: B+