Y. Violet Guo

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EDUCATION

UNIVERSITÉ DE MONTRÉAL
MS in Computer Science
Internship option / Avec Stage
Member of MILA Lab
Sep 2018 - May 2020 | Montréal, QC
CGPA: N/A

UNIVERSITY OF TORONTO
BASc in Computer Engineering
St. George Campus (Main Campus)
May 2018 | Toronto, ON
Year 1-2: Electrical Engineering
Year 2-4: Computer Engineering
Honours (3 Semesters)
CGPA: 3.21 / 4.0
Cumulative Avg: 77.3% / B+

LINKS

Github:// **violetguos**
LinkedIn:// **YVioletGuo**
Twitter:// **@YVioletGuo**

COURSEWORK

GRADUATE UDEM
Data Science*
Machine Learning*
(*: in progress)

UNDERGRADUATE UOFT
Artificial Intelligence: 94%, A+
Algorithm and Data Structure: A-
Machine Learning: B+
Signal Processing: A-
Algorithm and Data Structure: A-

COURSERA
Data Science Project & R Programming

SKILLS

PROGRAMMING
Proficient:
Python • C • C++ • LaTeX • MATLAB
Familiar:
R • HTML/CSS • SQL •
Assembly • Verilog
Framework/Library:
Tensorflow • Scikit-learn • Numpy • Scipy
Languages:
English • French(elementary)

EXPERIENCE

UNDER NDA | Systems Test Intern
Summer 2017 | Toronto, ON
- Tested and documented a cloud platform for medical imaging repository
- Developed test cases, security and performance specifications
- Summarized results in test reports and JIRA

SUNNYBROOK RESEARCH INSTITUTE | Research Student
Summer 2016 | Toronto, ON
- Redesigned and assembled a circuit with radiofrequency(RF) generator, EEPROM, and RF ablation wire to simulate in-vivo surgeries
- Programmed Douglas-Peucker Algorithm in MATLAB to verify RF ablation data and circuit parameters
- Rated top 10 among all summer research intern presentations at Sunnybrook's first science outreach event

PROJECTS

ADVANCED MACHINE LEARNING ALGORITHM | Link to Github
- Solved handwritten digit recognition problem with Naive Bayes, Bayes, injected prior, and Gaussian models without scikit-learn library, achieved 90% test accuracy
- Classified 20 news groups using SVM, neural net, and random forest, 80%test accuracy

ARTIFICIAL INTELLIGENCE PROJECT | Link to Github
- Programmed path finding algorithms, game tree with alpha-beta pruning, and Hidden Markov Model in Berkeley Pacman framework
- Programmed an abstract Constraint Satisfaction Problem(CSP) class in Python to solve Sudoku and n-queens

CYBERSECURITY PROJECT | C, SQL, Javascript, Assembly
- Injected C language memory exploit to compromise the system
- Implemented a secure communication network socket in OpenSSL and verification of a cryptographic hash (HMAC and SHA1) in C
- Implement HTML, Javascript,and SQL attack on webpages and servers

COURSERA DATA SCIENCE PROJECT | Link to Github
- Utilized googleVis and R to illustrate a large data set of 219 countries with an interactive map

SOCIETIES

UOFT ENGINEERING SOCIETY | Wellness Group, TechXplore
- Programmed Wellness Group's online handbook (link to Github)
- Organized workshops non-CS students to learn programming, including one collaboration with Department of Pharmacology
- Co-organized a machine learning hackathon using medical data with a start up company in Toronto