DANTE MAZZA

linkedin.com/in/dante-mazza
github.com/dantemazza
416-557-6012
d2mazza@uwaterloo.ca

Languages: Python, Java, C++, MATLAB/Octave, SQL, JavaScript, VHDL, RISC-V
Tools: NumPy, PyTorch, Matplotlib, Selenium

WORK EXPERIENCE

AUTOMATION DEVELOPER | SAP SE

SEPT 2019 - DEC 2019 | WATERLOO, ON

- Delivered **Python/Selenium** GUI test coverage with a 95% pass rate across multiple software versions (revamped **XPath** queries to account for varying **HTML** DOMs) while practicing version control with **Git**
- Abstracted common tests on search/sort/filter functionalities and general page navigation into shared functions, promoting code reuse and saving hours of work
- Repaired and refactored **Java/TestNG** performance test suite and sped up case runtime **by 60%** via dynamic page polling, significantly increasing volume of data available
- Located several dozen software bugs and **reduced false test positives by half** via committed debugging while providing ample documentation and code solutions for recurrent issues

IT TRAINEE | TORONTO WATER

JAN 2019 - APR 2019 | TORONTO, ON

- Cleansed transactional database with **SQL** queries and Excel/**VBA** macros by establishing thresholds for eliminating product entries, facilitating purchases
- Designed and wrote software manuals, employing user feedback and requirements

PROJECTS

LANGRAM

- **Python** model that accurately classifies the language of text input with n-gram frequency analysis, providing a **significant performance/resource improvement** over manual comparison and/or the use of expert knowledge
- Trained a **PyTorch** feedforward neural network with an input feature vector extracted from a large dataset of common words using **NumPy/nltk**

BOOLEAN SOLVER

- **Python** module that employs Quine-McCluskey/Petrick's Method to compute optimal boolean functions from minterm/maxterm inputs, making it a convenient tool for least-cost digital circuit design

MOVIE RECOMMENDER

- **Flask/MySQL** based **Python** recommender system for movies that updates on continuous user input
- Implemented a vectorized, **NumPy** collaborative filtering model with gradient descent from scratch

DESKTOP CHESS

- **Java** chess application that leverages **object-oriented** design principles and a **JavaFX** UI
- Composed original validation algorithms to include all rules and account for special cases (en passant, etc.)

MATRIXPLUS

- Matrix calculator built with **Java/Swing** that uses custom implementations of Laplace Expansion/QR algorithms for finding determinants/eigenvalues, allowing its use in many scientific applications

EDUCATION

University of Waterloo

Candidate for BASc, Honours Computer Engineering

- Deans Honour List 1A
- Unifor National Union & Regional Council Scholarship