BILAL AMIN

bilalamin.me
mbamin
mbamin

2A Mechatronics Engineering Student at the University of Waterloo

SKILLS

Languages - C++, Python, Ruby, Octave, BASH

Tools - Git, NumPy, SciPy, matplotlib, JIRA, Docker, Jenkins

EXPERIENCE

eSentire - Software Developer Intern - *Cambridge, ON* Sep. 2018 - Dec. 2018

- Wrote a back-end micro-service in **Ruby** that allows for remote updates for client's software across major Operating Systems (Linux, Windows, OSX)
- Reduced false positive threat alerts by **33%** after implementing new metrics in **Python**
- Increased efficiency of logging process by **5%** by refactoring back-end microservices in **Python**

TradeRev - Software Development Analyst - *Toronto, ON* Jan. 2018 - April. 2018

- Utilized **Selenium** and **TestNG** to automate regression and integration testing in Java
- Wrote and executed test procedures from business analysis documents
- Responsible for all aspects of the analyst workflow, including the development of test plans, and test cases

PROJECTS

Handwritten Digits Classifier (Neural Network) Dec. 2018

- Created a 3 layer Neural Network from scratch, without the aid of Keras to classify handwritten digits using **back-propagation** and **logistical regression** in **Python**, using **Numpy** and **SciPy**
- **96 % Accuracy** - Trained and Tested on a subset of the **MNIST** dataset
- Created graphs to visualize and display training data using **matplotlib**

Cit-Ease (University of Waterloo - uXperience Hackathon 3rd Place winner) Nov. 2017

- Developed a design for a new app that would decongest traffic in metropolitan areas, with the potential to generate over **$1,000,000** of revenue for the city during peak festival season

Snoop.io (Hack Harvard 2017 Submission) Oct. 2017

- Created a **website** that **streamlined** the process of adopting homeless dogs, leading to less dogs being put down every year
- Designed and built a fully functioning prototype system using **Bootstrap**, **Javascript**, and **HTML**
- Demonstrates an ability to think outside the box and create quality content within a limited timeframe

Maze Solving Robot Car Jun. 2017

- Designed and developed an **autonomous** robotic car using an **Arduino** microcontroller, that would be able to successfully navigate a variety of mazes to retrieve and return a small object , using a combination of **ultrasonic** and **light** sensors

AWARDS

Highest Mark Subject Proficiency in Math, Physics, Chemistry, English, Philosophy and Computer Engineering

- Developed strong **organizational** and **time management** skills to achieve success in a variety of different courses, while being a **student athlete.**

Waterloo Euclid Mathematics Competition - *Top 25 % (World)*

- Answered questions that required a high degree of thinking and knowledge application

President's Scholarships of Distinction

- **Outstanding** scholastic achievements, finishing grade 12 with an average of **99%.**

EDUCATION

University of Waterloo, *Waterloo, ON* Sep. 2017 - Present

- Candidate for B.A.Sc, Mechatronics Engineering, Honours Co-op 2022, 2A Term