

Adrian Lam

778-798-1148 | a76lam@uwaterloo.ca | github.com/adrianlamcw | linkedin.com/in/adrian-lam-32731a153

Technical Skills

Languages: Python, C++, C#, Java, SQL

Tools: Git, Visual Studio, Eclipse, Postman, Unity

Frameworks/ Libraries: Pandas, Scipy, Numpy, Matplotlib, ImageAI, Selenium, Allegro

Work Experience

Loblaw Companies Limited

Jan. 2020 – Apr. 2020

Data Analyst

Brampton, ON

- Gained familiarity with Python, Numpy, and Pandas in less than two weeks to aid in the development of mathematical models that **predict transactional behaviour of over 10,000 customers**
- Optimized data aggregation and filtering runtime **from 1 hour to 30 minutes** by researching and implementing efficient SQL queries and dataframe management techniques
- Created several data visualizations with Matplotlib and presented data findings in a coherent manner
- Analyzed customer transaction data using different statistical methods such as hypothesis testing

360 Education Labs Inc.

May 2019 – Aug. 2019

Software Developer - Testing and Operations

Toronto, ON

- Conducted monthly comprehensive tests covering **over 90% of product features** while following the agile software development life cycle to maintain product quality
- Developed automation scripts using Java with Selenium to test web application used by over 100 different organizations while considering race conditions such as browser loading time and script runtime
- **Increased efficiency in testing procedures by 12%** by replacing several manual testing suites
- Designed test cases for base and edge cases while performing black box **testing on dozens of new features**

Projects

Just Your Feedback, Hack the North (Python, ImageAI)

[Github Link](#)

- Won the Hack the North SurveyMonkey API challenge for the best and **most creative usage of their API**
- Led the team to create a machine learning image recognition model with ImageAI in Python to recognize hand gestures as input and automatically generate a response to a survey

Profits per Parsec (C#, Unity)

[Github Link](#)

- Currently developing a grand strategy game aimed towards building and managing a futuristic rocket business using C# in Unity
- Designed several UI elements, the solar system model, and **rocket pathfinding in 3D space**

Estate (C++, Allegro)

[Github Link](#)

- Created a real time strategy game with resource and unit management similar to Age of Empires 2 using C++ and Allegro for graphics and windowing
- Implemented 2D isometric image rendering order and unit movement pathfinding algorithms

Robotic Design Project (C++)

- Programmed an EV3 Lego robot in C++ that writes letters with a marker based on user input
- Implemented an integer array for efficient storage of coordinate data to control marker movement

Education

University of Waterloo

Sep. 2018 – 2023

- Candidate for Bachelor of Applied Science, Mechatronics Engineering

Relevant Courses - Algorithm and Data Structures

- Advanced skills in analyzing and designing efficient algorithms with low space and time complexities in coordination with data structures