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Adrian Lam

www.github.com/adrianlamcw
https://adrianlamcw.github.io

Technical Skills

Languages: (Proficient): JavaScript, Python, C#, SQL (Familiar): C++, Java   **Tools:** AWS Lambda, RDS, Git, Unity
Frameworks/ Libraries: Vue, Node.JS, Pandas, Scipy, Numpy, Matplotlib, ImageAI

Work Experience

Full Stack Software Developer   Sep. 2020 – Dec. 2020
Finastra/ Doorr   Toronto, ON
- Implemented several features for a mortgage web application **following AWS serverless architecture principles**
- **Leveraged Vue and JavaScript** to refactor and improve frontend navigation for a better user experience
- Created a mortgage application JSON object generator to test application validation in the backend
- Designed a frontend system for managing subscription services at both a user and sitewide level

Data Analyst   Jan. 2020 – Apr. 2020
Loblaw Companies Limited   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/filtering time **from 1 hr to 30 mins** with efficient SQL queries
- 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

Quality Assurance Developer   May 2019 – Aug. 2019
360 Education Labs Inc.   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 and 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

Projects

Personal Website: *https://adrianlamcw.github.io*

Image Recognition Web App: Just Your Feedback (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

Game: Profits per Parsec (C#, Unity)   *Github Link*
- Currently developing a grand strategy game aimed at managing a futuristic rocket business using C# in Unity
- Designed several UI elements, the solar system model, and **rocket pathfinding in 3D space**

Discord Chat Bot: Debt-Collector Discord Bot (JavaScript, Discord API, AWS RDS, SQL)   *Github Link*
- Created a discord bot that keeps track of outstanding debts between users
- Used an AWS RDS MySQL database to store debt data and discord.js plus node to interact with the Discord API

Game: Estate (C++, Allegro)   *Github Link*
- Created a real time strategy game with resource/unit management similar to Age of Empires 2 with C++/ Allegro
- Implemented 2D isometric image rendering order and unit movement pathfinding algorithms

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