Axel Tang

Toronto, Canada (204)-869-0127 axel0328canada@outlook.com github.com/axeltwc @Axel Tang

PROFILE

- Passionate and Innovative Software Engineer
- Professional experiences engineering on large scale software (UMPLE)
- Commited for continous growth and improvement.

SKILLS

Languages
Fluent: Java, Python, C#, HTML,CSS
Proficient: MATLAB, Racket-Scheme, Prolog, GoLang, JavaScript (React, Node.js, Angular), Kotlin

Quality Assurance
Fluent:Junit, Selenium
Proficient: JMH, EasyMocks, PitTest, JaCoCo, DBVisualizer

Database Management
Proficient: PostgreSQL, MongoDB, SpringBoot, Firestore, RESTful APIs

PROFESSIONAL EXPERIENCE

Founder/Software Developer 04/2016 – present
HumblexMC Server - Self Employed
- Developed multiple plugins for production environment using **Java for Paper platform**, and levaraged **Maven Bukkit API** for build automation.
- Created several **Batch Scripts** to automate server deployment and maintenance, improving overall system reliability by 90%.
- Developed server's official website and store, using **HTML**, **CSS**, **JavaScript** and utilized **Search Engine Optimization** on Google Search Console to improve pagerank from position 33 to 4.
- Led and managed a team of people working on the server by using project organization tools such as **Trello** and **Miro** to create and delegate tasks.
- Increase server growth through targeted advertising campaigns with approximately 465k views through promotional content and utilized strategic scaling of server resources to meet growth demand.

Umple Software Engineer 09/2023 – 12/2023
Honors Project - University of Ottawa
- Utilizing **Java** and **UMPLE** languages to address complex software issues.
- Resolved a medium difficulty bug (Indicate all Extraneous Brackets: Detect and Warn and Allow Continuous Input Code) In the Online IDE version (UmpleOnline) and Compiler of UMPLE
- Participated in displayColor assignment bug and allow correct formatting
- Created new Windows Integration Tools for future developers with **Batch Script** files

PROJECTS

RANSAC Algorithm 01/2023 – 04/2023
Algorithm Creation Project
- From autonomous vehicles navigation , vehicles equipped with LiDAR sensors captures detailed 3D representation (point clouds) containing crucial information of structures such as roads and buildings.
- Assigned to implement an algorithm that detects the three most dominant planar structures with **Java,Go Lang, Prolog, Scheme** and output with a 99% confidence level.

Information Retrieval System 01/2023 – 02/2023
IR System Project
- Implementing a Information Retrieval System based on vector space model with a collection of documents.
- Utilizing **Python** to create preprocessing, indexing, retrieval and ranking algorithms.

eHotelsWebApp 01/2023 – 04/2023

DataBase Project

- Creating Server and Client Web Application to keep track of the entire Hotel System using technologies such as node, nodemon, express, postgres, cors, postman.
- Assigned to create the employee page and room page for the entire application with **Express.js**, **PostgresSQL**, **Postman (REST API)**.
- Successfully presented the project with pages working as intended.

uODentist Website 05/2023 – 06/2023

FrontEnd HTML+CSS+JS Project

- Assigned to create a frontend project using **HTML, CSS , JS , Bootstrap 5**.
- Created and modified the website to a friendly user-interface and match the University of Ottawa's color schemes.
- Receieved positive feedbacks and leveraged HTML and CSS skills.

TechSupport Website 06/2023 – 07/2023

FrontEnd React Project

- Developed frontend website for TechSupport Business.
- Utilized **React** to develop UI for the website.
- Created Semantic Network , Heuristic Evaluations and Interactive Processes.

NLP and DL 11/2023 – 12/2023

Artificial Intelligence (AI) Assignment Project

- Perform an empirrical classification study and document the results.
- Utilizing **Python** with **Jupyter Notebook** and packages such as **Spacy, Pandas** and **Numpy** to visualize data and creating the NLP pipeline.
- Obtained macro/micro averages and classification report data(precision,recall,f1-score,support) for the logistic regression model and MLP classifier model.

2D AimTrainer 01/2022 – 02/2022

Desktop C# Application Project

- Created an Aim Trainer software in **C#** to improve aiming skills in FPS games.
- Implemented a score counter and miss counter to keep track of player statistics.
- Reducing target icon size per second by 10% after every iteration to increase difficulty.

StudentCourseBookingApp 05/2022 – 07/2022

Kotlin Application

- Creating a demo project to book courses for students in University of Ottawa.
- Using **Kotlin** to add validations utilizing regex for coursecode inputs in Android Studio.
- Finalizing the entire application creating **UML diagram**.

ShoppingCart 09/2022 – 09/2022

Angular Project

- Creating a Shopping Cart Demo with **Angular**.
- Utilizing HTML, CSS, TypeScript to create elements components and services.
- Finalizing the project and receieved a 90% positive feedback from correctors.

MathQuiz 09/2019 – 12/2019

C# Project

- Creating an engaging educational mathmatic application tool to help students improve their quick math skills.
- Building the application with **C#** with Visual C# 2010 Express
- Started by creating the core features and functionalities, then applying user interface. Finally adding a timer and colors on inputs to initiate high pressure calculations.
- Successfuly launched within the school and allowed multiple users to try, receieved positive feedbacks and enabled knowledges of user-centered designs.

ACADEMICS

University of Ottawa 2020 – 2023

Honours Bachelor of Science in Computer Science (Cum Laude)

- CGPA: 3.51/4.0
- Graduated Early From Expected
- Honours and Awards: Dean's Honour List, International Merit Scholarship