Yong Le He

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Skills Summary

Languages: HTML, CSS, JavaScript, TypeScript, SQL, Python, Java, C, Bash, Golang

Libraries and Frameworks: React.js, Next.js, Node.js, TailwindCSS, FastAPI, Pandas, NumPy, Matplotlib

Cloud and Database: AWS, Google Cloud Platform, Firebase, Supabase, PostgreSQL, MongoDB

Tools: GIT, Docker, Android Studio, Jupyter Notebook, Jira, Microsoft Office

Education

Honours Bachelor of Computer Science

Sep 2022 - present

University of Toronto Scarborough

CGPA: 3.81/4.00

Work Experience

Junior Systems Developer

May 2024 - Dec 2024

Municipal Property Assessment Coporation, Pickering, ON

- o Reduced processing time of data ETL pipeline for **40 GB** of client data from **24 hours** to **4 hours** by optimizing **Python** operations and incorporating multiprocessing libraries like **Modin** in place of Pandas
- o Developed a robust solution for debugging local applications running on **Docker**, significantly reducing the time needed to identify and resolve issues
- o Migrated a backend service running on **AWS ECS** to a serverless architecture using **AWS Lambda**, reducing system complexity and improving the application's scalability

Projects

Tush — Image Toolbox

Dec 2024

Personal Project, Full Stack Developer

Demo | Github

- o Designed and implemented serverless image processing workflows using **AWS Lambda** with **Python** and **OpenCV**, optimizing performance and scalability
- Optimized image processing for payloads greater than 60MB by uploading to AWS S3 presigned URLs instead of routing through the server, improving overall workflow speed

GoHere Jan 2024 - Apr 2024

Course Project, Mobile Developer

<u>Github</u>

- o Created a comprehensive POC solution for the GoHere Washroom Access Program, incorporating a mobile **React Native** application, a **React.js** web app for admins, and a **MongoDB** database for data storage
- o Integrated Google Maps API for washroom location mapping and route generation
- Led a team of developers as the scrum master, achieving project goals with a grade of 4.0

Data Science Accuracy Competition

Jan 2024

DS3 Datathon

- Created three machine learning models using the CNN, SVM, and Random Forest algorithms in Keras and Tensorflow, winning 6th place in the competition
- o Conducted research on the features of the dataset, analyzing their importance and covariance with the target variable using **NumPy**, **Pandas** and **Matplotlib**, resulting in cleaner data and an accuracy of **97**%

Thomp — Social Media Cloud App

Dec 2023

Personal Project, Full-stack Developer

Demo | Github

- o Implemented a secure **JWT** token-based authentication system, providing a strong and secure protection for the **Go** backend server against security threats
- o Engineered an application architecture using **Supabase** services as the cloud infrastructure provider for seamless integration of storage, authentication, and database functionalities, offering a fluid and intuitive user experience
- o Designed and optimized database schema, incorporating advanced **PostgreSQL** features for event triggers and the automatic removal of unnecessary data, decreasing the database size