Hok Hei Wong

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CAREER OBJECTIVE

Recently graduated from a software development program and is currently pursuing a career in software development on enterprise business systems and cloud-based applications in Canada.

SKILLS

Proficient	ES6, TypeScript, Git, HTML, CSS, JavaScript, Bootstrap, Node, Express, React, C#, .NET, SQL, MongoDB, Figma, Scrum, Agile
Familiar	AWS, Docker, Java, Python, TensorFlow Lite, Cloudflare, ML.NET, DNS, Selenium, Mocha, Unity, Blender

WORK EXPERIENCE

Student Researcher   WIMTACH - Toronto, ON   Oct 2022 - Present

As a member of an Agile Scrum team, designed and developed a cloud-based web and mobile application as a staffing management solution.

- Developed web front-end using ReactJS for user authentication, implemented the Restful API for job posts and applicants to the front end, created an interactive calendar managing job posts, and implemented google map API for getting user available radius.
- Designed the web and mobile user interface with Figma to improve user experience and facilitate front-end development.

PROJECTS

Full Stack Project - Aloha Rental   Link to Demo

A full stack application for private vehicle rental developed with MERN stack and TypeScript to provide renter options for cheaper car rental.

- Designed software design models and documentation
- Hosted back-end and front-end server on AWS cloud instances
- Created NoSQL database on MongoDB Atlas.
- Developed the back-end Restful APIs for car rentals, notifications functions, and image uploading functions with AWS S3.
- Developed part of the web front-end with ReactJS to implement the back-end APIs, including the available vehicle list, the create post page, and the notification component.

Machine Learning Project - Stop Sign Object Detection   Link to Demo

As many drivers do not own an autopilot car, we developed a stop-sign detection android application with TensorFlow Lite Model to facilitate their driving experience.

- Annotated 150 images with LabelImg and prepared data for model training.
- Trained object detection model on Google Colab with TensorFlow Lite model maker library.
- Modified TensorFlow object detection example into an Android camera application for stop-sign object detection.

Selenium Automated Test Scripts for User Registration and Login   [Demo Video]

To achieve automated testing, we adopted Selenium with Mocha Framework to test the signing up and logging in process of a web application.

- Prepared user authentication functions on a web application ready for unit tests.
- Programmed Selenium scripts for each unit test, such as user sign-up, user login, and invalid login.
- Recorded a demo video to demonstrate the automated testing.

Restful API - COMP214 Airlines   [Link to Demo | Demo Video]

A Restful API designed with Express and OracleDB to handle highly relational data of airline tickets anticipated with numerous data manipulation. EJS template was adopted for server-side rendering to provide a demo application of this API.

- Designed ERD and created SQL database with OracleDB and hosted the database on Oracle Cloud.
- Researched and established connections between Express JS back-end and OracleDB database.
- Programmed the airline ticket website interface with HTML, CSS, and JavaScript.

Restful API - Survey Horse

A Restful API designed with Express and MongoDB for a survey site with multiple data visualizations using ChartJS and ChartJS Wordcloud libraries. EJS template was adopted for server-side rendering to provide a demo application of this API.

- Developed the back-end Restful API for surveys and user authentication.
- Created NoSQL database on MongoDB Atlas.

Individual Project - Socket.IO Chat App   [Link to Demo]

To achieve a real-time chat application, a web socket must be created to provide two-way communication between clients and servers. This chat application project adopted the Socket.IO library to provide the needed bidirectional channel.

- Developed the back-end and front-end servers and established web sockets between them using Socket.IO.
- Created several chatrooms connected with different web sockets.
- Hosted the application on AWS instance.

Individual Project - Web Scraping with Python   [Link to Demo]

Since I wanted to make a list of podcasts of a channel that is updated on a daily basis on separate web pages, an application using Python with Beautiful Soup library is developed to scrape the podcasts into a single page.

- Created Python script to scrape podcast links and information with the Beautiful Soup library and exported the data to JSON files.
- Created the back-end server with ExpressJS to run the Python script automatically every day to update the scraped information.

EDUCATION

2021 - 2023	Post-Secondary Diploma in Software Engineering Technician	(GPA: 4.36/4.5)
	Centennial College	
2022 - 2023	BEng (HONS) in Civil Engineering	(GPA: 3.07/4.0)
	The Hong Kong Polytechnic University	

ACTIVITIES

| Fall 2022 | FundEvolve Hackathon at WIMTACH - Winner of website UX competition | [Link] |