

Kyle Tan

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TECHNICAL SKILLS

Programming Languages: C/C++, Python, JavaScript, TypeScript, Java, HTML, CSS

Developer Tools: Git, OpenCV, PyTorch, Android Studio, Firebase, Hugging Face, React, Next.js, Node, Pandas, Jupyter Notebook, Streamlit, Microsoft Excel, Flask, Tailwind CSS, Material UI, Figma, Express.js, Langchain, OpenAI

EDUCATION

University of Waterloo

Sep 2021 – Present

Bachelor of Mathematics with Co-op

Waterloo, ON

- **Honours Computational Mathematics and Honours Combinatorics & Optimization.**
- Relevant Coursework: **Optimization, Algorithms and Data Structures, UI/UX Design**

INTERNSHIPS

Hatch Coding Full Stack Developer

Jun 2023 - Aug 2023

Internship

Remote

- Developed micro web-applications for non-software workers in a potential contract for construction firm EllisDon.
- Utilized the **Firebase, Express.js, React, Node tech stack** to build a web app that uses **Restful API with CRUD operations** to automate a documentation database with AI assistant integration.

WE Accelerate Manulife Stream Project Developer

May 2023 - Aug 2023

Internship

Waterloo, ON

- Received a **\$1000 award** for designing and deploying a **single page web app** using an **Restful API** for **event driven architecture** on data visualization of stock info using the **Finnhub API and Firebase**.

EXPERIENCE

DeerHacks

Apr 2023

Extracurricular

Toronto, ON

- Participated in a competitive hackathon hosted by the University of Toronto.
- Developed an **Android app in Java** using **Google Maps API** to locate ice cream trucks in real time and predict future locations through crowd-sourced info stored on a **NoSQL database** via **Google Firebase**.
- Implemented the truck verification using **computer vision** via **Haar Cascade classifier** in **OpenCV**.

Hack the North

Sep 2021

Extracurricular

Waterloo, ON

- Participated in a competitive hackathon hosted by the University of Waterloo.
- Used a **BERT sentiment analysis model** with data obtained from scraping the web using the library **Beautiful Soup** to detect and classify hate speech.

SIDE PROJECTS

DocGPT | *Python, Streamlit, GPT4All, Langchain, Google Firebase*

- Developed an offline AI powered information query web app using **GPT4All** that can read user uploaded documents and use them in conversations.
- Utilizes Google's **Flan T5** model hosted on **Huggingface Hub** and Langchain to pre-process, train on PDFs with a clean and simple UI using Python **Streamlit**.
- Implemented a **NoSQL database** which allows users to quickly and securely connect using **Google Authenticator** to access their PDFs from **Firebase's Cloud Firestore**.
- Currently updating web app for deployment using the **Next.js** framework in **TypeScript**, using the GPT 3.5 API for faster performance and greater **type safety**.

Honk Stonks | *NodeJS, ReactJS, Google Firebase, Tailwind CSS*

- Developed a modern stock trading visualizer tool using Tailwind CSS and **ReCharts** with **NoSQL database** storage using **Google Firebase** to read and write to CSV files.
- Implemented user login with **Firebase Authentication** for user authentication.