Mike Gao

(365)-996-5533 | m5gao@uwaterloo.ca | linkedin.com/in/mikegao000 | github.com/fuselierr | mikegao.ca

Technical Skills

Languages: C/C++, Python, Java, Kotlin, JavaScript, C#, HTML/CSS
Frameworks/Tools: React, Next.js, Node.js, Django, Git, Bash, Flask, Vercel, PyTorch, Gradle, Docker

Education

University of Waterloo — Waterloo, ON
Bachelor of Computer Science — *Sep. 2022 – Present*
- Expected Graduation: May 2027

Experience

R&D Assistant Developer — Feb. 2024 – May 2024
DupliCALL Co. — *Remote*
- Researched, locally deployed, and extensively tested **90+** dialogue summarization LLMs using **Huggingface** and other open-source libraries.
- Developed innovative concepts to handle company requirements such as hardware optimization, multilingual translation capabilities, and integration into company call transcribers.
- Streamlined LLM testing methods through development of interactive tkinter GUI interface, improving testing efficiency by **60%**
- Presented culminative research findings via PowerPoint to a team of **10+** software engineers. Showcased GPU efficiency of summarization methods through developed interface.

Programming Instructor — Nov. 2021 – Mar. 2022
Canfly Education Canada — *Remote*
- Educated youth about basic programming concepts (syntax, variable manipulation, loops, etc.) using Java.
- Organized course content and curriculum with Canfly management to enrich each student's learning experience and meet Canfly's educational goals.

Projects

Timestamp | *Kotlin, Jetpack Compose, Gradle, Spring Boot, Firebase, Docker* — Sep 2024 – Dec 2024
- Spearheaded a team of 4 software developers to develop a secure time-management mobile app that organizes events, sends timely reminders, and provides real-time user location updates.
- Ensured smooth connection of Frontend and Backend with MVVM architecture & activity-scoped ViewModels.
- Integrated Graphhopper's routing engine through to reduce Location routing requests from **500ms to 10ms**.
- Built an intuitive frontend UI using **Material3** design to maximize user engagement, including Mapview page that leverages Google Maps API.

Chess | *C++, Git, Flask* — Jul. 2024 – Aug. 2024
- Developed C++ chess application using OOP principles, utilizing inheritance and polymorphism for player/piece type hierarchy.
- Utilized MVC and Observer design patterns for user interactions, enhancing reusability/maintainability of code.
- Designed efficient and error-free algorithms to detect complex game states (checkmates, stalemates, discovered checks, etc.)

Honours & Awards

3rd Place Overall (125+ submissions) - UofTHacks | *JS, TS, React, Node.js, Next.js, Vercel* — Jan. 2024
- Created Phish-Eye Lens - a phishing puzzle web-app that leverages **Gemini API** to simulate unique user data for password-cracking clues.
- Employed **blackbox** LLM-tuning methods to ensure our model protects the puzzle solution regardless of user interference but maintains intuitive and creative scenarios.
- Designed seamless retrieval of **4** unique server endpoints built with **Express.js**, supporting intuitive messages/emails Frontend mockup with live LLM chat roleplay.

Best Hack: Resolutions (40+ submissions) - United Hacks V2 | *Android Studio, Kotlin, xml* — Jan. 2024
- Implemented an Android Studio mobile app that helps users achieve quality sleep through a virtual pet.
- Included a comprehensive UI/UX setup menu to add customizability to user experience.