ANDREW LIN

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Education

University of Waterloo   **Sept. 2020 – 2025**
Candidate for Bachelor of Computer Science   *Waterloo, Ontario*

Technical Skills

Languages: C, C++, C#.NET, Java, Python, HTML, CSS, JavaScript, Golang, Groovy
Technologies: Git, MongoDB, PostgreSQL, NuGet, Google Pub/Sub, Google BigQuery, Insomnia, Dbeaver
Frameworks/Libraries: React, Node.js, Express.js, Socket.io, Django, Moq, XUnit, MFC

Work Experience

Geotab   **May 2023 – Aug. 2023**
Software Developer Intern   *Oakville, Ontario*
- Integrated a new vehicle database using C# and Entity Framework into Geotab's data ingestion service by writing functions to add, update, and delete from a CloudSQL database, resulting in over 50000+ added vehicles
- Modified data ingestion service to utilize new Google Protobuf message to send data to Google Pub/Sub, resulting in over 140M+ messages a day serializing and deserializing to the updated Google Protobuf message
- Refactored code to utilize Dependency Injection using C#.NET across vehicle data ingestion data flow to help facilitate the migration of the application from the VM environment to Kubernetes
- Developed enrollment and unenrollment message handlers in C#.NET to make API calls to facilitate vehicle enrollment and unenrollment processes on the new Kubernetes platform

Rocscience   **Sept. 2022 – Dec. 2022**
Software Developer Intern   *Toronto, Ontario*
- Utilized C++, MFC, and Codejock to implement an updated ribbon bar consisting of buttons, dropdown buttons, and an updated combobox component onto Settle3, their MFC desktop application, for product release
- Documented over 20+ frontend changes for all Rocscience's MFC desktop applications, streamlining and reducing time expenses of future UI updates by 50%
- Converted desktop application, file, and registry classes into NuGet Packages, improving code maintainability and saving 10% of development time
- Created and integrated Resource DLLs for MFC applications to support sharing of resources resulting in 2x increase of UI resource updates

Monest   **Dec. 2021 – May 2022**
Software Developer Intern   *London, Ontario*
- Helped create a website using React and Django that displays social and environmental data for 30+ clothing brands and companies to help consumers make responsible purchasing decisions
- Implemented an email subscription feature using React and Django by saving emails into a PostgreSQL database
- Refactored code into multiple React components, improving code manageability and reusability
- Implemented additional REST API methods to query database information for pollution, worker exploitation, and diversity data for clothing brands

OpenText   **Jan. 2022 – May 2022**
Software QA Automation Intern   *Waterloo, Ontario*
- Developed automated tests and wrote 30+ tests to test REST APIs using Jmeter, and Groovy scripts to facilitate API response, performance, and load testing for OpenText's Remote Access Software
- Developed a TCP and UDP Client/Server console application using Golang and C#.Net for performance statistics
- Created a Golang console application that displays Windows performance counters like RAM, CPU, and disk usage for performance statistics baselines and testing

Projects

My-Chat-App | *React, Node.js, Express.js, Socket.io, MongoDB*
- Built a web-based chat application using the MERN stack that allows users to chat with other users privately
- Utilized Node.js, Express.js and MongoDB to build a REST API used to query chat information, and used Socket.io for websocket connections

ASCII Game Engine | *C++, Ncurses*
- Implemented a C++ game engine to support the creation of ASCII art video games that is able to handle sprite creation, collision handling and rebound physics
- Created the "Google Dinosaur Game" and the "Impossible Game" using the game engine