Andrew Lin

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Education

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

Technical Skills

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

Work Experience

Geotab **May 2023 – Present**
Software Developer Intern *Oakville, Ontario*

- Developed enrollment and unenrollment message handlers in C#ASP.NET to make API calls to facilitate vehicle enrollment and unenrollment processes on the new Kubernetes platform
- Modified data ingestion mechanism to utilize new Google Protobuf message to send data to Google Pub/Sub, resulting in over 14,000,000+ messages a day utilizing the updated Google Protobuf message
- Refactored code to utilize Dependency Injection using C#ASP.NET across vehicle data ingestion data flow to help facilitate the migration of the application from the VM environment to Kubernetes
- Utilized XUnit, Moq and Fixtures to write unit tests in C# and tested API endpoints with Insomnia, resulting in increasing application test coverage by 5%

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
- Wrote unit tests in C++ for NuGet Packages, increasing test coverage by 15%
- Created and integrated Resource DLLs for MFC applications to support sharing of resources

Monest **Dec. 2021 – May 2022**
Software Developer Intern *London, Ontario*

- Helped create a website that displays social and environmental data for 30+ clothing brands and companies
- 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 to test REST APIs using Jmeter, and Groovy scripts to facilitate API response, performance, and load testing for Exceed TurboX, OpenText's Remote Access Software
- Wrote over 30+ test cases for REST API testing to facilitate functional and regression testing for Exceed TurboX
- 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