ANDREW LIN

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EDUCATION

University of Waterloo — **Sept. 2020 − 2025**
Candidate for Bachelor of Computer Science — *Waterloo, Ontario*
- Relevant Courses: Operating Systems, Algorithms, AI, Distributed Systems, Concurrency and Parallelism

TECHNICAL SKILLS

Languages: C, C++, C#.NET, Java, Python, HTML, CSS, JavaScript, Golang, Groovy
Technologies: Git, MongoDB, PostgreSQL, AWS Lambda, S3, Grafana, Google Pub/Sub, Kubernetes, Docker
Frameworks/Libraries: React, Node.js, Express.js, Socket.io, Django, Moq, XUnit, MFC

WORK EXPERIENCE

Arctic Wolf Networks — **Sept. 2024 − Dev 2024**
Software Developer Intern — *Waterloo, Ontario*
- Enabled a seamless migration to Karpenter across 6+ services by optimizing Kubernetes configurations and implementing signal handlers in Golang, resulting in a seamless migration and improving service reliability
- Automated PR creation for api-spec-driven code updates using Github Actions and shell scripts, improving productivity for 2+ projects by minimizing developer intervention by 50%
- Developed a Grafana visualization to track sensors and certificate expirations, enabling clear visibility of upcoming expirations for 19000+ sensors

Amazon (AWS) — **May 2024 − Aug. 2024**
Software Development Engineer Intern — *Toronto, Ontario*
- Implemented a Grafana dashboard for data visualizations on CPU and sudo usage, aiding in CPU optimization efforts and potentially saving the organization 2500 CPU hours of processing time across production
- Designed an automated system using AWS Lambda, AWS Athena, EventBridge, and S3 to orchestrate CPU profiling for the dashboard, leading a 3x increase in time efficiency
- Wrote bash scripts to access CPU usage, facilitating data collection and analysis for performance improvements, leading to a 70% increase in CPU data

Geotab — **May 2023 − Aug. 2023**
Software Developer Intern — *Oakville, Ontario*
- Integrated a new vehicle database in C#.NET 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

Rocscience — **Sept. 2022 − Dec. 2022**
Software Developer Intern — *Toronto, Ontario*
- Utilized C++, MFC, and Codejock to overhaul their 3D CAD software's user interface, by implementing an updated ribbon bar, dropdown buttons, and an updated combobox, contributing to a successful product release
- Converted desktop application, file, and registry classes into NuGet Packages in C++, improving code maintainability and saving 10% of development time
- Created and integrated Resource DLLs for MFC applications to facilitate the seamless sharing of PNGs and Icons, resulting in 2x increase of resource updates by eliminating possible bottlenecks during UI updates

OpenText — **Jan. 2022 − May 2022**
Software QA Automation Intern — *Waterloo, Ontario*
- Developed automated tests and wrote 30+ tests to test REST APIs using Jmeter to facilitate response, performance, and load testing for OpenText's Remote Access Software
- Developed console applications using Golang and C#.Net for performance statistics and to 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

ASCII Game Engine | *C++, Ncurses*
- Implemented a C++ game engine to support the creation of ASCII art video games