Andy Li

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Education

University of Waterloo Bachelor of Applied Science in Computer Engineering 2020 – 2025

- Coursework: Data Structures & Algorithms, Systems Programming & Concurrency, Real-Time Operating Systems

Centre of Excellence in Next Generation Networks Machine Learning with Python Certification Aug 2022

Skills

- **Languages:** C, C++, Java, Python, JavaScript, TypeScript, Dart, MATLAB
- **Frameworks:** Node, Express, React, React Native, Angular, Flutter, Django
- **Data/ML:** NumPy, Pandas, Matplotlib, Plotly, Scikit-Learn, SQL, MySQL, PostgreSQL, Sequelize, MongoDB, Redis
- **DevOps:** AWS, Azure, Firebase, Docker, Kubernetes, Selenium, Robot Framework, Grafana, Kibana, Bash, Linux, Git, Jira

Experience

Software Engineering Intern @ Cineplex
Jan 2023 – Present
Toronto, ON

- Spearheaded the company-wide migration to automated testing with Robot Framework and Java.

Software Engineering Intern @ Tehama
May 2022 – Aug 2022
Ottawa, ON

- Built a Docker container to install and run the entire development environment with only a single command.
- Supervised the status of hundreds of active VPNs by organizing millions of logs in Kibana and sending alerts when a system is compromised.

Software Engineering Intern @ KitchenMate
Sep 2021 – Dec 2021
Toronto, ON

- Enabled real-time payment authentication on the kiosk's point-of-sale system using third-party APIs.
- Automated the functionality of the Smart Cooker to scan the QR code on the dish and fetch the cooking instructions from a backend database using RESTful APIs.

Software Engineering Intern @ Watorace
Jan 2021 – Apr 2021
Waterloo, ON

- Optimized the performance of an automated vehicle by measuring the time and maximum speed for laps, straightaways, and the corners of a racetrack in C++.
- Trained the vehicle to make perfect turns using an event loop that adjusts the steering wheel and acceleration according to live data from the vehicle's LiDAR sensors.

Projects

Alien Invasion github.com/andyli11/alien-invasion Jan 2023 – Present

- Created an endless 2D game to control a spaceship and defend against approaching aliens.
- Built in Python using the object-oriented programming paradigm with the focus on encapsulation, abstraction, and inheritance.

PNG Puzzle school project Sep 2022 – Dec 2022

- Reconstructed a PNG image by combining broken PNG pieces retrieved from a webserver in the form of binary files.
- Built in C with the focus on multi-threading, parallel-processing, semaphores, mutexes, and inter-process communication.

Interests

- Soccer, Basketball, Fitness, Cooking, Chess, Reading, Anime, Movies.