ERNESTINE HO

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EDUCATION

Toronto Metropolitan University (Formerly Ryerson University) *Sep. 2020 – Jun. 2025*
Bachelor of Engineering – Computer Engineering
Minor in Computer Science
Dean's List Recipient – Fall 2024

SKILLS

Languages: Typescript, Python, Java, JavaScript, SQL, HTML/CSS, VBA, Kotlin
Frameworks: React, Svelte, FastAPI, Spring Boot, Vite
Developer Tools: Git, AWS, PostgreSQL, MySQL, MongoDB, Node.js, Appium, Docker, Kubernetes, gRPC, Rabbitmq

RELEVANT EXPERIENCE

Software Developer – Pomerleau
AWS, React, TypeScript, Vite, Python *Jan. 2024 – Now*
- Revamped a real-time video interface using React, TypeScript, AWS IoT Core, Kinesis Video Streams, and MQTT, for **5+** live feeds with **sub-2s latency**, secured via IAM roles and policies.
- Managed Docker containers on Boston Dynamics Spot with **AWS IoT Greengrass**, enforced IAM role-based access, and automated CI/CD with **AWSCodePipeline**, boosting uptime **40%.**
- Automated frontend testing with **Playwright**, reaching **95%** coverage, and reducing manual QA time by **50%**.

Product Manager Intern – LORA Technologies
Appium, Java, Python, Svelte, VBA, DataGrip, LambdaTest *Jun. 2023 – Dec. 2023*
- Implemented an AI chatbot site focused on answering **10+ financial questions** using Svelte.
- Automated verifying **100+** bot transactions by developing **VBA scripts** and used DataGrip for schema inspection.
- Implemented end-to-end Python tests in the CI/CD pipeline to simulate a full bot transaction lifecycle and ensure order stability.
- Developed Java UI automation scripts using **Appium** and **LambdaTest**, resulting in a reduction of over **4 hours** of downtime every week and streamlined the quality assurance testing of the app's UI/UX.

Software Developer – Toronto Metrobotics
Javascript, Java, React, Spring *Sep. 2021 – Jun. 2022*
- Developed a full-stack dashboard using **Spring Boot** and **React**, with RESTful APIs and interactive charts to help the science team analyze geological data across rock samples and terrain conditions.
- Developed a Tkinter dashboard to support real-time rover monitoring and maneuvering for the autonomous team.

PROJECTS

Social Networks-based Recommender System for Tourists
React, TypeScript, Python, FastAPI, Databricks, MongoDB, Docker *Sep. 2024 – Apr. 2025*
- Built a full-stack tourism recommender with a **React frontend** and containerized **FastAPI APIs** using Docker.
- Developed a **Databricks ETL pipeline** to process **3,800+ locations** in real time and store enriched data into **MongoDB**.
- Designed and developed a hybrid recommender with Sklearn and Surprise, improving Top-10 accuracy by 18% and addressing 100+ cold-start users.

St. Augustine CHS Android App *Mar. 2019 – May 2020*
Java, Kotlin, Firebase
- Developed and maintained the Android version of the school app serving **250+** students with a small dev team.
- Implemented features including push notifications for school-wide announcements and a centralized hub for clubs with dedicated pages.