

## Technical Skills

**Programming Languages:** Python, Java, JavaScript, TypeScript, C++, C, Go, Rust, HTML/CSS

**Frameworks & Libraries:** React, Next.js, Node.js, Spring Boot, Hibernate, Django, Express.js, Electron, ASP.NET

**Machine Learning & Data:** TensorFlow, scikit-learn, Pandas, NumPy, LangChain

**Developer Tools & Platforms:** Git, GitHub, GitLab, Docker, Kubernetes, Apache Maven, Swagger, Kafka, K9s, Elasticsearch

**Databases & Cloud:** SQL, MySQL, PostgreSQL, MongoDB, SQLite, DynamoDB, Amazon S3

## Experience

### Tesla

September 2025 - December 2025

Fremont, California

*Software Engineer Intern*

- Built an **LLM-driven** log-summarization pipeline (**Python, OpenAI, Apache Airflow**) for manufacturing systems that reduced manual triage time by **20%**, processed ~1M log lines/day, and surfaced anomalies earlier.
- Productionized an existing **Kubeflow** multivariate-correlation pipeline by developing a **Go** orchestration API—handling execution, status feedback, and publishing human-readable reports to **Amazon S3**—enabling self-serve analysis for engineers.
- Built read-optimized **Go** endpoints with **SQL** for correlation insights and time-series metrics, achieving **p95 < 100 ms** latency and cutting ad-hoc data requests from operations.
- Created graphical visualizations with **Matplotlib, NumPy, and Pandas** to dynamically trace a component's location history across its manufacturing lifecycle, enabling faster triage and clearer end-to-end understanding.

### Amazon Web Services

May 2025 - August 2025

Toronto, Ontario

*Software Developer Intern*

- Designed and implemented an **account registration system** for **AWS Partner** users by building RESTful APIs with **Java, Spring Boot, EC2, and DynamoDB**, enabling seamless partner onboarding at scale.
- Built a **frontend portal** for the registration system using **TypeScript, React, and Next.js**, giving partners a streamlined interface to manage onboarding and account access.
- Engineered a custom article ingestion pipeline leveraging **AWS EventBridge, Python, and Amazon S3** to convert **Salesforce documents into HTML articles**, reducing ingestion time and improving content distribution for internal webpages.
- Enhanced **system reliability and observability** across both the registration system and ingestion pipeline by **integrating CloudWatch dashboards and alarms**, which enabled proactive issue detection and **reduced customer tickets by 10%**.
- Streamlined delivery of both services by **containerizing applications with Docker** and automating deployments via **AWS CodePipeline and CloudFormation**, cutting manual release effort and accelerating feature rollout.

### Cisco

January 2025 - April 2025

Ottawa, Ontario

*Software Engineer Intern*

- Designed and deployed a **CLI-based telemetry performance visualization tool** for **gRPC and NETCONF** subscriptions, **streamlining CPU and RAM monitoring** and enabling faster debugging of network issues.
- Developed a **real-time process monitoring system in C** that automatically detects and terminates memory leaks and high-CPU processes, **reducing overall memory usage by 20%** and improving system stability.
- Extended **performance visibility to the developer workflow** by building an **automated dashboard with Java, Grafana, and Kafka** to track daily build changes, **accelerating the detection of breaking commits and reducing debugging time** for development teams.

### Qualcomm

May 2024 - August 2024

Toronto, Ontario

*Software Engineer Intern*

- Led development of a **full-stack desktop color calibration tool** using **Electron, TypeScript, and React**, allowing users to fine-tune display properties (hue, saturation, brightness) and successfully deployed to **500+ clients**.
- Designed and implemented **backend services with C# and ASP.NET**, integrating native **C++ drivers for color calibration**, which reduced processing latency by **50%**.
- Implemented a **CI/CD pipeline for ASP.NET APIs using Swagger, NUnit, and Jenkins**, improving test coverage and ensuring reliable daily builds with automated code quality reporting.
- Engineered a **cross-platform Python SDK to extract display color and hardware data from Android devices**, replacing a DLL-based solution and significantly improving OS compatibility and scalability.

### Nokia

May 2023 - August 2023

Ottawa, Ontario

*Software Developer Intern*

- Contributed to real-time software development in **Embedded C** for Nokia's SR OS, improving **system performance, scalability, and hardware-level integration** in production environments.
- Integrated **GitLab CI/CD with containerized Pytest suites on a Kubernetes cluster**, enabling **25+ parallel test runs** and dynamic scaling for faster regression coverage.
- Applied **machine learning techniques in Python** using **scikit-learn and NumPy** to classify packet patterns and detect **anomalies in encrypted traffic flows**, improving validation efficiency and reducing reliance on manual inspection.

## Education

### Carleton University

*Bachelor of Computer Science, Concentration in Artificial Intelligence and Machine Learning*

Ottawa, Ontario

- GPA: 4.0/4.0