

Mfon Udoh

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EDUCATION

Thompson Rivers University

Bachelor of Computing Science

Kamloops, BC

December 2026

GPA: 3.79/4.33

- **Awards:** Dean's List recipient for 4 semesters.

- **Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Database Systems, Software Architecture and Design, Computer Networks, Applied Artificial Intelligence, Discrete Mathematics.

EXPERIENCE

Application Developer Co-op

May 2025 – Present

Environment and Climate Change Canada, Kelowna, BC

- Developed a ticketing system using ServiceNow to streamline service requests, serving **10,000+** users.
- Wrote scripts using JavaScript to enforce UI policies on forms, reducing manual input errors by **40%**.
- Built a KPI dashboard for the Geospatial Support group, integrating **10** performance indicators to support data-driven insights.
- Re-engineered **3,000+** lines of legacy Python code into native ServiceNow flows, centralizing Service Desk operations.
- Fine tuned an NLP model for a virtual agent by utilizing quality data, achieving a **95%** success rate.

PROJECTS

MapReduce | Go, gRPC

- Developed a MapReduce engine with Go featuring a master-worker architecture and communication with **gRPC**.
- Built CLI tooling to submit and execute distributed MapReduce jobs on different CPU cores.

Eureka | Next.js, Python, Spring Boot, Docker, AWS, Gemini API

- Developed an online platform for developers to share project ideas, hosting **10,000+** diverse ideas.
- Built an ETL pipeline that scrapes hackathon projects and transforms them using Gemini, adding **100+** projects to the database daily.

FilmFindr | Next.js, Spring Boot, TypeScript, PostgreSQL, TMDB API

- Developed a full-stack web application for movie recommendation, drawing from the TMDB API.
- Enhanced web app performance through caching and database pagination, reducing data load times by **30%**.

Network Intrusion Detection System (NIDS) | Python, FastAPI

- Developed a machine learning based NIDS achieving 95% accuracy on 3 million network flows, outperforming traditional rule-based systems like Snort by 6%.
- Engineered an automated, reproducible ML pipeline with hyperparameter tuning and one-click reports for model performance and interpretability.

AI Chatbot | Next.js, TypeScript, PostgreSQL, Gemini API

- Developed chatbot using Next.js and the Gemini API, implementing response streaming with the Vercel AI SDK.
- Integrated secure Google OAuth authentication using NextAuth.js, enabling persistent chat history in a Neon Serverless PostgreSQL database.

TECHNICAL SKILLS

Languages: Java, Python, Go, JavaScript, TypeScript, C, C++, PHP, HTML/CSS

Databases: PostgreSQL, MySQL, Oracle, SQLite, MongoDB

Frameworks/Libraries: Next.js, React.js, Express.js, Node.js, Spring Boot

Tools: Git, Figma, Postman, Docker, AWS