

Alex Farhood

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PROFILE

- Impact-driven **software engineer** and **cloud practitioner** building scalable, secure solutions on **AWS** and shipping **user-focused web apps**; co-founder of **Aladi**, delivering high-converting, **SEO**-optimized websites for small businesses.

PROFESSIONAL EXPERIENCE

Sun Life

Sept 2025 – Dec 2025

Cloud Infrastructure Analyst, Data Science Workbench Team

- Enabled data scientists to run secure, large-scale GenAI workloads by engineering the IAM execution role for **Bedrock Batch Inference** using **CloudFormation**, resulting in **50% lower inference costs** compared to alternatives.
- Delivered large-scale demos and onboarding sessions to **hundreds of stakeholders** including **Senior Directors and AVPs**, accelerating adoption of GenAI tools across teams.
- Engineered secure access to **Amazon Q Business** through CloudFormation-based roles and a **Least-Privilege** SSO role, eliminating manual provisioning and reducing misconfiguration risk.
- Supported reliability and cost modelling for an internal **vector-based RAG system** using **PostgreSQL** (pgvector) and **SageMaker**.
- Assisted teams with onboarding to Batch Inference and began developing a UI that transforms raw CSV files into model-ready formats, then back into user-friendly outputs.

Sun Life

May 2024 – Aug 2024

Software Engineer Intern, Data & Analytics Core Enablement Team

- Reduced merge conflicts and improved **development velocity** by building a **merge queue application** in **Java** integrated with Bitbucket.
- Increased deployment reliability by containerizing services with **Docker** and orchestrating serverless workflows via **AWS Lambda**.
- Persisted application data using **PostgreSQL**, with builds and testing automated through **Gradle**.
- Collaborated within a high-performing **Agile/Scrum** team.

Additional Cloud Infrastructure Work (Data Science Workbench)

- Improved **information discovery** by using **Amazon Kendra** to index and search large, unstructured datasets.
- Built conversational enterprise search interfaces using **Amazon Lex**.
- Automated document extraction and ingestion pipelines using **Lambda** and **SageMaker**.

EDUCATION

University of Toronto

Sept 2023 – April 2027 (Expected)

Computer Science Specialist

- Focus on **systems, cloud computing, and infrastructure engineering**.

TECHNICAL & OTHER SKILLS

- **Languages:** Java, Python, C, C++, C#
- **Web:** Next.js, HTML, CSS
- **Cloud & DevOps:** AWS (Kendra, Lex, Lambda, S3, Q Business, Bedrock, SageMaker, EC2, RDS), Docker, CloudFormation
- **Databases:** PostgreSQL, Firebase
- **ML:** Random Forest, Gradient Boosting, Vertex AI, vector databases
- **Tools:** GitHub, Bitbucket, Gradle
- **Values & Soft Skills:** Ownership, communication, leadership, time management

PROJECTS

Personal AI Professor

- Accelerated my own learning and project workflow by building a **chatbot** trained on course textbooks and project descriptions to act as a personalized **AI teaching assistant**.
- Ensured secure, always-available access by deploying the system on an **AWS EC2** instance within a locked-down **VPC**, managing access via **SSH**.

AI File Summary System

- Simplified knowledge extraction from documents by designing a cloud solution using **Amazon Kendra**, **Lex**, **SageMaker**, and **Lambda**.
- Increased relevance of AI responses by dynamically linking **source documents** and metadata.

Custom Garbage Collection System (C)

- Improved **memory safety** for C programs by building a custom garbage collector to manage dynamic allocations.
- Tracked memory using pointers, stack/heap structures, bitwise operations, and diagnostic file I/O.

Dr. Mario Video Game (Assembly)

- Developed a **Doctor Mario-inspired** game entirely in **Assembly**, demonstrating low-level systems knowledge.
- Rendered graphics through direct memory manipulation and **RGB pixel rendering**.

ACHIEVEMENTS & LEADERSHIP

- **Sun Life BOLDER Award Nominee** (2025)
- **Sun Life Student Social Committee** — Event planner & financials manager
- **University of Toronto Entrance Scholarship** (2023)
- **Men's Hockey Team Manager**
- **GTHL Official**, City of Toronto (2022)
- **Captain**, Vaughan Rangers — Most Dedicated & Most Improved