

ASSER ISMAIL

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PROFILE

- Software Engineer with experience in AI/ML & Distributed Systems building production MCP & RAG LLM-powered systems
- Co-inventor on a 2025 Patent in RDMA-based replication for distributed cloud databases
- Honours B.Sc. in Computer Science from the University of Toronto & Member of the Dean's List Scholar

TECHNICAL SKILLS

Languages: Python, Java, C, C++, TypeScript, JavaScript, SQL, PostgreSQL, Shell, Assembly, C, React.js

Software: AWS, Docker, Kubernetes, Firebase, Flask, FastAPI, LangChain, LangGraph, OpenAI API, Gemini API, Ollama, REST APIs

Tools: Tableau, Power BI, Git, Linux, Redis, Postman, PyTorch, TensorFlow, Jupyter Notebook, GitLab, GitHub, Claude Code, Codex

EXPERIENCE

AI Software Engineer | **AI Samurai**

Oct. 2025 - July 2026

- Developed AI-powered media summarization pipelines using OpenAI and Gemini APIs for 100+ audio and video content
- Integrated LangGraph based agentic workflows for multi-step reasoning and tool calling, with use of Tableau and Power BI
- Designed Python backend services using Codecs, WebAudio & AWS to process and improve summary quality by 25%
- Optimized LLM performance through prompt engineering, model benchmarking, and automated quality evaluation

Cloud Database DevOps Engineer | **Huawei**

May 2024 - Sep. 2025

- Developed low-level C, Python, and Shell software for Linux cloud database systems, supporting enterprise SaaS deployments
- Improved deployment efficiency by 40% by automating DevOps workflows using Python, Shell, and LLM-based tooling
- Built and debugged distributed database components for replication, storage, high availability, and recovery with GitLab
- Designed synthetic data generation pipelines using LLMs from DDL schemas and prompts for testing and benchmarking
- Leveraged Ollama LLM & Vanna AI architecture with vector databases, accelerating data retrieval & semantic search by 23%
- Co-inventor on a patent (2025) for DMA pull-based RDMA log sync. between master/replica in cloud-native databases

PROJECTS

CNN Photo Geolocation Model

- Designed a CNN-based photo geolocation model using continent classification and coordinate regression on Street View image
- Built a 38K+ image dataset from the Google Street View API with multi-angle sampling and data augmentation for robustness
- Applied transfer learning with the EVA-02 backbone pretrained on ImageNet-22k to extract geographic visual features
- Achieved 96% continent accuracy and a 251 km avg. localization error, outperforming Google PlaNet and Claude-3.5 baselines

Distributed Real-Time Pixel Platform

- Built a serverless real-time pixel platform using AWS Lambda, API Gateway WebSockets, Redis and CloudFront
- Managed WebSocket connections and distributed rate limiting with Redis to support concurrent users
- Optimized performance with atomic Redis operations and CloudFront edge caching to reduce latency

University of Toronto Software Platform

- Built an organization's full-stack ASP.NET web app using MVC with PHP, Flask, ReactJS and MongoDB, handling 200+ users
- Led a team of 3 developers, mentoring and onboarding new members on REST APIs, Flask & ReactJS best practices
- Implemented Firebase's secure authentication & real-time data updates with DigitalOcean, improving user experience by 27%

EDUCATION

University of Toronto| Computer Science Specialist

Honours Bachelor of Science (HBS) + PEY Co-op

<u>Relevant</u>	- Machine Learning & AI (PyTorch, Python)	- Software Tools and System Programming (C, Shell)
<u>Coursework:</u>	- Deep Learning (PyTorch, TensorFlow, Architecture)	- Operating Systems (C, Linux, Processes, Threads)
	- Computer Networks (TCP/IP, Routing, Network Protocols)	- Database Systems (SQL, PostgreSQL, MySQL)

CERTIFICATES & HONORS

2026	Agentic AI, Built autonomous AI agents using planning, reflection, tool use, and multi-agent workflows	DeepLearning.AI
2026	Agile Project Management, Learned Scrum, Kanban, backlog, sprint planning and Agile delivery practices	Google
2026	InstructLab Bias Detection Model, Fine-tuned Granite-7B using synthetic data to diagnose bias	Riipen/Red Hat x IBM
2024	ML Specialization, Completed supervised, unsupervised, & reinforcement learning courses (NLP, Transformers)	Coursera
2023	Microsoft Certified: Azure Fundamentals, Cloud concepts in networking and Azure in particular	Microsoft
2023	Dean's List Scholar, Maintained 3.50+ CGPA throughout the academic year	UNIVERSITY OF TORONTO
2021	Entrance Scholarship, Achieved a 4.0 CGPA in the first academic year	UNIVERSITY OF TORONTO
2019	MVP Award, Most Valuable Swimmer Award in High School	Stephen Lewis SS