Osman Sultan

647-608-2802 | osmansultan2002@gmail.com | linkedin.com/in/osmansultan- | github.com/osman-sultan | osmansultan.me

EDUCATION

University of Toronto — Toronto, ON
BASc in Industrial Engineering, Minor in Artificial Intelligence — *Expected 2025*
- **Relevant Coursework:** Operations Research, OOP, DSA, Stats/Probability, Big Data Mining, Deep Learning, Recommender Systems, Information Retrieval, Databases, Reinforcement Learning, Optimization in ML

TECHNICAL SKILLS

Languages: Python, TypeScript, Java, SQL
Frameworks & Libraries: React/Next.js, Node.js/Express, Spring Boot, PyTorch, Scikit-learn, Pandas, NumPy
Cloud & Developer Tools: AWS (S3, Lambda, EC2), Azure (Graph API, Logic Apps, Functions), Docker, Git

EXPERIENCE

Data Engineering Contractor — April 2025 - Present
Munero Global Loyalty — *Remote*
- Designing an **AWS QuickSight** dashboard for order, operational, catalog, and stock forecasts
- Developing ETL pipelines for **DynamoDB (NoSQL)** data into a scalable **AWS** workflow

Machine Learning Engineer — Sept. 2024 – April 2025
Ploopy Corporation — *Toronto, ON*
- Engineered a **FastAPI** backend and PostgreSQL vector database for an embedding-based email matching engine using **Azure OpenAI's text-embedding-3-small** and **cosine similarity**, achieving 80% match accuracy.
- Automated end-to-end email replies via **Azure App Service**, **Microsoft Graph API**, and **Logic Apps**, reducing response time from days to under 32 seconds.

Full Stack Engineering Intern — Sept. 2023 – Sept. 2024
Doctalk Inc. — *Toronto, ON*
- Migrated data models from **RedisGraph** to **PostgreSQL**, designing relational schemas for easier querying and detailed logging, improving data integrity and maintainability.
- Built **type-safe REST APIs with role-based authentication** using **React.js (Next.js)**, **Node.js**, and **TypeScript**, powering backend services for pivotal features in *PGYPal*, the company's flagship app.
- Engineered end-to-end **real-time notifications and messaging** system using **Redis** and **Supabase** with the pub-sub pattern.
- Developed the frontend with **Tailwind CSS** and **custom React components**, boosting daily active users by 50%.
- Streamlined CI/CD pipeline with **Vercel** and **GitHub Actions**, cutting deployment time by 80%.

Software Developer Intern — Jun. 2022 – Sept. 2022
Molex LLC — *Waterloo, ON*
- Transformed a legacy embedded CLI into a web app using **Python**, **FastAPI**, and **Jinja**, reducing testing times by 50%.
- Leveraged **Python's asyncio** to allow for multi-user testing, enhancing performance and developer experience.

LEADERSHIP

Cofounder — Oct. 2021 – Dec. 2023
UofT Freelancers Organization — *Toronto, ON*
- Led a university club delivering 5+ pro-bono web app projects for university-affiliated organizations using **React.js** and **Bootstrap**, adhering to an Agile SDLC with Git/Jira workflows. Example: CSCE UofT

PROJECTS

AI Persona Generation Platform | *Next.js, LangChain, TypeScript, LLMOps*
- Developed SaaS platform using **React.js (Next.js)** and **Llama-2-70b** for creating AI chat personas.
- Implemented retrieval-augmented generation (RAG) with **Pinecone vector database** and **Redis** for memory.
- Built UI with **ShadCN** and integrated **Clerk authentication**, and **Stripe payments**.
- Code: github.com/osman-sultan/persona-ai

CarKART: Automotive Marketplace | *Java SpringBoot, MySQL, Vue.js, Bootstrap 5*
- Led a team of 7 to build a **full-stack application** for buying and selling cars using **Agile SDLC**.
- Designed backend with **Java SpringBoot**, **MVC** methodologies, and a **MySQL** database involving 5 unique **RDBMS** entities.
- Developed intuitive **UI/UX** using **Bootstrap 5** and **custom Vue.js composables** supporting **CRUD** interactions including account creation, listings, and user reviews.
- Code: github.com/osman-sultan/CarKART-BackEnd, github.com/osman-sultan/CarKART-FrontEnd