Osama Gaber Yousef

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EXPERIENCE

Software Engineer | Huawei | Ottawa, CA

May 2024 - Present

- Enhanced **Python** 6G network simulation with Agentic AI conversational interface leveraging LangChain and vLLM, enabling natural language network operations execution
- Developed simulation framework with **React** GUI and **Node.Js** backend, featuring auto-documentation and one-click benchmarking tools, reducing prototype development time by 60%
- Contributed to research accepted at IEEE GLOBECOM 2024 and showcased at MWC Barcelona 2025, demonstrating Huawei's NET4AI 🗷 vision to 88,000+ industry professionals

Software Developer | Ivey Business School | Hybrid

Sep 2023 - Apr 2024

- Designed ETL pipeline ingesting unstructured mail-room logs through pandas transformations and SQLAlchemy ORM, delivering KPI analytics via Plotly Dash visualization layer
- Implemented Java (Apex) room-booking module with conflict detection and 24-hour tentative hold logic, eliminating double-booking and reducing scheduling emails by 95%

Software Programmer | Western University | London, ON

Jan 2023 - Aug 2023

- Automated software version control for 200+ lab endpoints using PowerShell and WinRM with winget baseline manifests, reducing update time by 90%
- Automated CMS migration workflow with Python content validators and Selenium-driven screenshot testing, guaranteeing visual consistency across platform migration

SKILLS

Languages: Python, JavaScript, TypeScript, Java, Go, C/C++, Bash, SQL, HTML/CSS Frameworks: React, Next.js, Node.js, Express, Flask, Spring Boot, React Native, Angular

AI/ML: LangChain, OpenAI API, vLLM, RAG, Ollama, Gemini, MLOps, Kafka

DevOps: Linux, Docker, Kubernetes, CI/CD, Terraform, AWS, GCP, Git, GraphQL, gRPC, REST APIs

Projects

OutHives 🗹 | Next.js, Node.js, PostgreSQL, Elasticsearch, GCP, Redis, Socket.IO

Feb 2025

- Founded & Built Full-stack services marketplace connecting users with service providers across 20+ categories
- Engineered real-time booking system with geo-spatial matching and payment processing
- Built event-driven architecture using SQS for async task processing and caching layer reducing database load by 40%
- Implemented comprehensive monitoring with Prometheus/Grafana dashboards tracking API latency, user engagement metrics, and system health across services

OutBlue 🗹 | React, Lambda, S3, SQS, Docker, RDS, Jest

May 2025

- Developed visual-learning platform leveraging GenAI to enhance educational experiences
- Architected serverless GenAI pipeline using Lambda functions for prompt-to-visual generation
- Optimized content delivery using CDN caching and S3 for media assets, reducing video load times by 60%

EDUCATION

Western University

London, Canada

Dean's Honour List

- Awards: Western Scholarship of Distinction
- Relevant Coursework: Data Structures, Algorithms, Operating Systems, Software Architecture, Compiler Design, Databases, Project Management, Distributed Systems, Machine Learning, Object-Oriented Programming

Publications & Activities

Bachelor of Science - Computer Science

Article | "LLM Interfaces: Less Benchmarks Better Chatbots" (Aug 2025) - Analysis of current limitations in conversational AI interfaces, proposing UX improvements for enterprise chatbots & platforms.

Lead Volunteer | Western University - Selected to coordinate orientation programs for 300+ international students, managing team of 25 volunteers while leading campus tours and facilitating cross-cultural integration events