

Franklin Muoghalu

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EDUCATION

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| University of Houston | Expected Graduation: May 2026 |
| Bachelor's in Computer Science | |
| • GPA of 3.57/4.0 ; Dean's list student | |

TECHNICAL SKILLS

Programming Languages: Python, C++, C#, Java, JavaScript, SQL, R, HTML/CSS, Razor
Frameworks & Libraries: React.js, Node.js, Express.js, Flask, .NET
Tools & Platforms: Git, GitHub, GitHub Actions, Docker, Google Cloud
Server & DevOps: Nginx, Reverse Proxy Configuration, SSL/TLS, Cloudflare DNS, SSH, Systemd Services
AI & ML: RAG, NLP, Model Fine-Tuning, Neural Networks, Logistic Regression

WORK EXPERIENCE

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| System Engineer , Foxconn | May 2025 – Present |
| • Created and implemented internal testing software that increased overall testing efficiency by 30% | |
| • Authored comprehensive technical documentation used by production technicians, improving workflow speed and reducing onboarding time by 20% | |
| • Designed, deployed, and maintained production control systems, factory automation platforms, and industrial network infrastructure to support high-volume manufacturing operations | |
| Director of Tutoring , CougarCS | August 2025 – Present |
| • Developed a Discord-based tutoring coordination bot that streamlined student support and contributed to a 20% increase in overall student performance | |
| • Led and managed a team of 15+ tutors, ensuring consistent delivery of high-quality academic assistance across multiple subjects | |
| • Designed customized study plans for students, resulting in measurable grade improvements of up to 25% | |

PROJECT EXPERIENCE

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| Documentation Tool Python, Flask, Express.js, React, JavaScript, LLM, NLP, RAG | September 2025 – Present |
| • Designed and built a documentation platform that automatically logs, categorizes, and tracks errors encountered during development | |
| • Implemented a hybrid backend architecture using Express.js for database routing and a Flask service for image uploads, file processing, and communication with a locally running RAG model | |
| • Integrated LLM and NLP components to provide contextual suggestions, error explanations, and automated documentation generation | |
| • Projected to increase overall development productivity by 30% through centralized issue tracking and AI-assisted debugging | |
| Dani-Foods E-Commerce store React, Typescript, Express, MYSQL, Github Actions, Nginx | August 2025 - Present |
| • Developed and maintained an e-commerce platform for selling Nigerian food products, including secure checkout and inventory tracking features | |
| • Automated operational workflows such as pricing updates, low-stock alerts, and order notifications | |
| • Implemented SEO and analytics strategies that increased traffic and repeat customer purchases | |
| Frontend Creator Python, Httpx, Flask, React, LLM, MCP | September 2025 |
| • Developed a custom MCP server-client system that automatically generates frontend design skeletons to accelerate UI development | |
| • Increased overall web development efficiency by 40% through automated component generation and streamlined workflows | |
| • Integrated LLM-driven prompts and template generation to produce consistent, responsive layouts with minimal effort | |
| O.M.N.I Python, LLMs, Embeddings, NLP, RAG, OpenAI, Docker, Cloudflare | November 2024 - May 2025 |
| • Won the Grand Prize at the Johnson Space Center Hackathon for applying O.M.N.I to NASA mission manuals, enabling astronauts to rapidly retrieve emergency procedures using natural-language queries | |
| • Built an intelligent AI agent with a Python backend and Tkinter UI, designed to allow users to query and navigate complex technical information in real time | |
| • Developed a publicly accessible API capable of ingesting documents from any source, generating embeddings, and storing them in a vector database for high-accuracy retrieval | |
| • Containerized and deployed the system using Docker and Cloudflare Tunnels for secure, remote accessibility and testing | |
| Self-Hosted Server Infrastructure & Deployment Nginx, Docker, Cloudflare | October 2024 – Present |
| • Built and maintained a multi-platform server infrastructure spanning a Raspberry Pi 5, a home Linux server, and an Oracle Cloud instance | |
| • Hosted and managed 5+ applications including personal web apps, LLM tools, and a multiplayer game server, ensuring high availability and secure access | |
| • Configured a full Nginx-based reverse proxy with Cloudflare SSL/TLS, DNS, and firewall protections across all environments | |
| • Deployed database services on Oracle Cloud, supporting API backends and real-time application features through optimized connection management | |
| • Implemented automated updates, containerized services, and monitoring tools to streamline maintenance and improve overall system reliability | |