Oluwasegun Adewola

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EDUCATION

Northeastern University Sep. 2024 − May 2027
Master of Science in Computer Science, GPA: 4.0 *Seattle, USA*
- Relevant Courses: *Data Structures and Algorithms (C), Object Oriented Design (Java), Discrete Math, Foundations of Computer Science (Python)*

SKILLS

Languages: Java, Python, TypeScript, C/C++, Go, SQL, HTML/CSS
Frameworks & Libraries: React, Node, Three.js, FastAPI, Spring, SpringBoot, PyTorch, LangChain, Socket.IO
Tools: Docker, Cursor, AWS, Google Cloud, Linux, GitHub, PostgreSQL, MongoDB
Libraries: pandas, NumPy, Matplotlib, sci-kit learn, Pytorch, LangChain, Socket.IO, Pygame

PROJECTS

[Remit-Track](#) (Remittance Intelligence API) | *Java, TypeScript, Python, PostgreSQL* Jun. 2025 − Ongoing
- Designed enterprise-grade FX intelligence API using **Java Spring Boot, PostgreSQL** with **TimescaleDB**, and **Redis** caching architecture, with system designed to handle 10K+ requests/hour across multiple Money Transfer Providers.
- Architected dual-purpose API system with separate B2C rate comparison and B2B competitive intelligence endpoints, implementing API key authentication and tier-based rate limiting for enterprise clients.
- Integrated **Python AI agent** workflow using **CrewAI** and **LangChain** for automated MTP discovery and rate collector generation, enabling dynamic onboarding of new providers without manual configuration.

[Astronoma](#) (AI 3D-Space Exploration App) | *Python, React, Three.js, FastAPI* Jun. 2025 − Ongoing
- Co-architected full-stack app with team using **Python FastAPI** backend and **React** with **Three.js**, enabling real-time 3D Space exploration with Llama 4-powered AI guide for immersive learning across 11 supported languages.
- Implemented WebSocket communication and AI integration pipeline with intelligent caching and AWS Transcribe/Polly for voice-controlled navigation that processes natural language commands into 3D environments with 60 FPS rendering.
- Built procedural content generation system using **PIL** and **NumPy** for texture creation, implementing async batch processing that reduces initial load time by 60% while generating scientifically accurate celestial object visualizations.

[LLMConquest 4](#) (Realistic Game AI Prototype) | *Python, Ollama, Mistral 7B, Whisper, PyQt* Mar. 2025 − Mar. 2025
- Won People's Choice Award at Qualcomm & Microsoft Edge AI Hackathon leading 5-person team to integrate Mistral 7B on Ollama for narrative-driven Connect Four game with conversational AI opponent.
- Implemented thermal-aware minimax algorithm with alpha-beta pruning and speech processing pipeline using **OpenAI Whisper**, reducing computational load by 50% during high temperatures through dynamic depth adjustment while enabling seamless voice gameplay with 16kHz audio capture and real-time transcription.
- Selected by Qualcomm and Microsoft judges post-hackathon to develop RPGMaster, an AI DungeonMaster experience inspired by Dungeons & Dragons, designed for next-gen Snapdragon X-Elite edge devices.

EXPERIENCE

Volunteer Python Instructor Jul. 2024 – Aug. 2024
***Apps and Scripts** (Coding Bootcamp for kids)* *Ibadan, Nigeria*
- Designed and delivered an 8-week Python programming workshop to kids aged 8-15, achieving a 90% positive feedback rate.
- Developed interactive coding challenges and adapted teaching methods to different learning paces, addressing learning gaps and increasing final assessment average score by 18% YoY.

Data Scientist, FX Pricing Jan. 2023 – Aug. 2024
***Sendapp, Flutterwave** (International Money Transfers to Africa)* *Lagos, Nigeria*
- Developed Python-based FX rate tracker using Playwright and Requests enabling real-time competitor analysis, for FX insights, reducing manual data collection time by 50% and increasing team productivity by 22%.
- Designed predictive pricing algorithms based on market trends and historical sales data in collaboration with cross-functional teams, leading to a $150,000 revenue increase in the first month.
- Collaborated with core engineering teams to integrate pricing algorithms into the Consumer FX platform, enhancing data accuracy and price update speed, resulting in a 12% increase in pricing-related product activations.

LEADERSHIP & PARTICIPATION

National Society of Black Engineers (NSBE) − *Member* Sep. 2024 − Present
Northeastern University Lead − *Events Lead* Jan. 2025 − Present
Northeastern University GameCube − *Design Lead* Dec. 2024 − Present

AWARDS

People's Choice Winner, Qualcomm & **Microsoft** Edge AI Hackathon Mar. 2024
Global Learner Scholarship Award, Northeastern University Sep. 2024