

Oluwasegun Adewola

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EDUCATION

Northeastern University

Expected May 2027

Master of Science in Computer Science, GPA: 4.0

Seattle, USA

- Relevant Courses: Advanced Algorithms, Data Structures and Algorithms, Object Oriented Design, Databases Management Systems, Discrete Math, Foundations of Computer Science

SKILLS

Languages: Java, Python, TypeScript, JavaScript, C/C++, Golang, SQL, HTML/CSS

Frameworks: React, Node.js, Express, Three.js, FastAPI, Spring, Spring Boot

Tools & Databases: Docker, AWS, Google Cloud, Linux, Git, GitHub, MySQL, PostgreSQL, MongoDB, Redis

Libraries: pandas, NumPy, Matplotlib, scikit-learn, PyTorch, LangChain, Socket.IO

PROJECTS

[Remit-Track \(Remittance Intelligence API\)](#) | *Java, TypeScript, Python, PostgreSQL, Docker*

Jun. 2025 – Ongoing

- Designed enterprise-grade FX intelligence **RESTful API** using **Java Spring Boot**, **PostgreSQL** with **TimescaleDB**, and **Redis** caching architecture, with a system designed to handle 10K+ requests/hour across many 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

Graduate Teaching Assistant

Aug. 2025 – Present

Khoury College of Computer Science, Northeastern University

Seattle, USA

- Selected to support **Discrete Math** instruction this Fall through office hours, assessment grading, and student mentoring.

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% year-over-year.

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