

Oluwasegun Adewola

segunadewolai@gmail.com | 425-652-2931 | segunadewola.com | linkedin.com/in/segunadewola

EDUCATION

Northeastern University

Expected Dec. 2027

Master of Science in Computer Science, GPA: 4.0

Seattle, USA

- Relevant Coursework: Distributed Systems, Machine Learning, Databases, Object-Oriented Programming, Data Structures and Algorithms, Advanced Algorithms
- People's Choice **Winner**, **Qualcomm & Microsoft** Edge AI Hackathon
- **Global Learner Scholarship**

PROJECTS

RemitTrack (*Skyscanner for Currency Exchange*)

[GitHub](#)

- Built a real-time exchange rate comparison platform for the African diaspora covering **15+** Money Transfer Providers; the **Go** monolith on **EC2** behind **NGINX** handles **REST APIs**, an in-memory alert engine dispatching price-target notifications via **AWS SES**, and a **B2B** token-gated data endpoint, backed by **RDS PostgreSQL**, **ElastiCache**, **WAF**, and **Stripe** for billing.
- Serverless **Go Lambda** functions triggered by 5-minute **EventBridge** crons emulate browser TLS fingerprints using **uTLS** and route through rotating residential proxies to bypass bot detection, pushing normalised rate records to **SQS** for idempotent ingestion into **RDS PostgreSQL**.
- Delivered a **Next.js**, **TypeScript**, and **React** frontend compiled to flat static files, hosted on **S3**, and edge-served via **CloudFront** with **ISR** webhooks refreshing corridor pages on every ingestion cycle at near-zero origin compute for page traffic.

Coast (*Agentic Self-Healing & Compliance Harness for RemitTrack*)

[GitHub](#)

- Built a **multi-agent** self-healing pipeline using **Python**, **LangGraph**, and **ChromaDB**; when **CloudWatch** detects a scraper failure, an agent uses **RAG** over a **ChromaDB vector store** to retrieve similar past fixes, prompts an **LLM** to generate a repair patch, and opens a pull request, keeping the platform running without manual scraper maintenance across **15+** providers.
- Each **AI**-generated patch passes a **Go AST** safety linter, runs in a **Docker Compose** sandbox against a regression corpus of past failures, and clears a **3-sigma** statistical canary check before a pull request is opened; infrastructure managed in **Terraform** and orchestrated via **GitHub Actions**.

Chatflow (*Distributed Chat App*)

[GitHub](#)

- Built a distributed chat system with **4** horizontally-scaled **Java Spring Boot WebSocket** servers on **AWS EC2** behind a load balancer, with **RabbitMQ** for message routing, **Redis** for caching, **Cassandra** for storage, and dedicated consumer processes decoupling message delivery from persistence.
- Achieved **13K messages/second** throughput validated through load and integration testing, with dead letter queues, exponential backoff, and circuit breaker patterns for production-grade fault tolerance.

EXPERIENCE

Graduate Teaching Assistant

Aug. 2025 – Apr. 2026

Khoury College of Computer Science, Northeastern University

Seattle, USA

- Led **Discrete Math** and **Data Structures and Algorithms** instruction across **2** semesters (Fall 2025, Spring 2026) through teaching, office hours, and grading under Jelani Drew and Prof. Tony Mullen.

Software Engineer

Dec. 2022 – Aug. 2024

Flutterwave YC16 (Digital Payments for African businesses)

Lagos, Nigeria

- Drove a **66%** revenue increase in the first month by leading development of the predictive pricing service for **SendApp**, Flutterwave's consumer currency exchange product, covering **660+** currency pairs, built in **Python** and deployed via **GitHub Actions**.
- Designed and rolled out initial dynamic pricing algorithms validated by domain experts using **Linear Programming**, and built **Power BI** monitoring dashboards enabling real-time error detection and alerting, saving **\$1.5M+** in revenue over 6 months.
- Built scheduled web crawlers and data pipelines using **Requests**, **Playwright**, and **Google Cloud** to aggregate competitor exchange rates on a recurring schedule, powering both the predictive pricing service and executive market intelligence reporting.

SKILLS

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

Technologies: Spring/Spring Boot, FastAPI, Node.js, React.js, Next.js, RabbitMQ, Kafka, TCP/IP, REST

Databases/Storage: PostgreSQL, MySQL, Redis, Cassandra, MongoDB, DynamoDB, S3

Tools: Linux, AWS, GCP, Docker, Kubernetes, Git, Github Actions, Terraform, Prometheus, Grafana

AI/ML: LangChain, LangGraph, ChromaDB, PyTorch, scikit-learn, NumPy

LEADERSHIP & PARTICIPATION

Seattle Systems (seattlesystems.xyz) – *Member*

Jan. 2026 – Present

Northeastern University Leadership Club – *Co-President*

Jan. 2025 – Present

National Society of Black Engineers (NSBE) – *Member*

Sep. 2024 – Present