Adetola Adetunji

832-486-0739 | adetolaadetunji08@gmail.com | linkedin.com/in/adetola-adetunji | github.com/mintoleda

Education

University of Texas at Austin — Austin, TX
Bachelor of Science in Computer Science, Minor in Statistics and Data Science — *Expected May 2029*

Projects

RESTful Spotify API Service | *Java, Spring Boot, Jest, REST API*

- Developed a backend service that integrates **real-time Spotify data** into a web app, using **60-second HTTP** caching to cut response latency by ∼**40%** on repeat requests.
- Engineered a **REST API** using **Spring Boot** and **Java** that maintains **sub-second** end-to-end response times while implementing **OAuth2** flows for session management and token refreshing.
- Designed **4** custom JSON endpoints to filter and structure track and playlist data with an average response time of ∼**50-100ms** for frontend integration.
- Created a Jest test suite with **91%+ statement coverage** and **zero critical vulnerabilities** across 17 test cases, gracefully handling potential errors.

Morning Commute | *Java, Apache Kafka, Spring Boot, Docker, PostgreSQL*

- Created a 3-service ecosystem (trips, pricing, analytics) that streams trip events through **Apache Kafka** and aggregates them in 1-hour windows with **Kafka Streams**.
- Implemented a reactive pricing service that reads **real-time Kafka event streams** to calculate demand multipliers via a surge pricing algorithm, simulating production-grade ride-hailing logic.
- Created a time-series analytics pipeline that processes *TripRequested* and *TripCompleted* events, storing hourly demand data in **PostgreSQL** to track trends over time.
- Deployed a **5-container environment** (services, Kafka, Zookeeper, Postgres) with **Docker Compose** for low-latency communication between the services.

InboxOrganizer | *Python, Google Cloud Platform (GCP), Docker, Ollama*

- Built an AI-powered Gmail organizer that uses **Llama 3.1 8B** (by default) via **Ollama** to categorize high volumes of email, with a recommendation engine that suggests new labels for batches of **50+ untagged emails**.
- Reduced **LLM inference costs** and latency by ∼**30%** by implementing **context-aware body truncation** and **regex noise-filtering**, maintaining high categorization accuracy while staying within token limits.
- Automated secure email management using the **Gmail API** and **OAuth2**, featuring persistent session handling with token.json to eliminate manual re-authentication.
- Containerized the solution with **Docker**, configuring environment variable isolation for **Ollama** host management and cross-platform deployment.

Extracurricular Activities

Sustainable Building Initiative (SBI) — September 2025 - Present
Software Engineer

- Engineered a scalable, schema-driven questionnaire engine using TypeScript and React, reducing frontend boilerplate by ∼**80%** while supporting **5+ distinct input types** and real-time validation for **13+ mission-critical data points**.
- Architected a "**Decision Tree**" logic system that automatically processes client input to trigger **3 specialized downstream workflows** (Civil Engineering, Mechanical Systems, Finance), designed to scale to **10+ conditional branches**.
- Designed a reactive intake dashboard featuring real-time status tracking and automated "Missing Required" validation, serving as the **central source of truth** for **5+ internal departments** to monitor project lifecycle progress.
- Implemented dynamic routing capabilities that conditionally unlock backend forms based on project requirements (e.g., specific infrastructure needs), **streamlining the data collection process** for complex, multi-stage projects.

Technical Skills

Languages: Java, Python, HTML/CSS, JavaScript, TypeScript
Frameworks/Technologies: RESTful APIs, Docker, Spring Boot, Git, Google Cloud Platform, Ollama, Jest, React, Apache Kafka, Kafka Streams, PostgreSQL