

# Itwela Ibomu

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## EDUCATION

### Western Governors University (WGU)

Salt Lake City, UT

*B.S. in Software Engineering*

*December 2026 (Estimated)*

- Relevant coursework: Data Structures & Algorithms; Python; Front-End Web Development; JavaScript

## EXPERIENCE

### Software Engineer

Jul 2025 - Dec 2025

*Dope Marketing*

- Built internal AI platform used by 3 managers to automate account research and data analysis.
- Created APIs granting agents instant access to millions of housing and client records, cutting manual lookup time from hours to minutes.
- Delivered 3 production tools adopted by management, enhancing research efficiency across departments.

### Software Engineering Fellow

Jul 2024 - Sep 2024

*Headstarter*

- Led a team of 3 to build CitySwipe, an AI vacation planner with 200 users and 50K+ impressions.
- Won 1st place out of 300+ teams in a nationwide hackathon for innovation and product execution.
- Shipped 5 AI web apps using Next.js, LangChain, and Supabase; scaled multiple to 200+ users.

### AI Engineer

Apr 2024 - Jun 2024

*Dataforce*

- Reduced captioning error rates by 20% across 200 videos/day through workflow optimization.
- Improved data processing consistency and automated recurring QA checks for higher reliability.

### Software Intern

*J.P. Morgan (Forage)*

- Built real-time data visualization tool (200ms updates) using the Perspective library.
- Gained exposure to enterprise-scale data systems and visualization workflows.

## PROJECTS

### Lotus — AI Wellness App | *React Native, Replicate, OpenAI, Convex*

- iOS Ai wellness app currently available on the App Store.
- Built an API-driven agent pipeline to orchestrate LLMs and multimodal generators for automated title, content, audio narration, and image generation while enforcing the company's content and ethical guidelines.
- Produced audiobook narration used by my father; packaged audio + book bundles and generated five-figure revenue from album and book sales.
- Developed a monetization and pricing strategy by analyzing dozens of model cost/performance tradeoffs to ensure profitable unit economics.

### Jelly Up! — Instant Video Caption Generator | *Next.js, Whisper, OpenCV, Docker, FFmpeg*

- Automated subtitles and burned-in captions with Whisper and OpenCV; judged 2nd place at Headstarter Hiring Hackathon.
- Architected an end-to-end automated captioning pipeline using Whisper for ASR and OpenCV for frame alignment, producing both SRT and burned-in captions.
- Improved caption sync and robustness by implementing frame-alignment heuristics and encoding automation for reliable demos.

### Globetrotter AI — Voice Travel Assistant | *Flask, Python, OpenAI, Google TTS, React Three Fiber*

- Voice-activated travel planner integrating speech recognition and travel APIs.

- Built a voice-activated travel assistant integrating speech recognition, LLM planning, and third-party travel APIs to produce itinerary suggestions and spoken responses.
- Won 1st place at the Headstarter Hiring Hackathon for voice UX, API integrations, and production-ready demo.

#### **CitySwipe — AI Travel Planner** | *Next.js, LangChain, Pinecone, Supabase*

- Personalized travel recommendations via LLM + vector search.
- Designed personalized travel recommendation flows using LLMs plus vector search for context-aware suggestions; reached 200+ users and 50K+ impressions.

#### **Job Tracker & Analytics Dashboard** | *Next.js, PostgreSQL, Supabase*

- Automated job tracking workflow and analytics dashboard.
- Built an automated job-tracking and analytics dashboard that reduced application bookkeeping time by 50% through workflow automation and templated application generation.

#### **RAG — AI "Rate My Professor" Chat App** | *Next.js, TypeScript, Pinecone, OpenAI*

- Real-time RAG chat application using vector search for contextual answers.
- Implemented vector-search RAG architecture to serve real-time contextual answers and improve perceived answer relevance.

### TECHNICAL SKILLS

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**Languages:** LangChain, LangGraph, Python, TypeScript, React, Next.js, React Native, Node.js, PostgreSQL, Supabase, Docker, Pinecone, OpenAI, Convex, Replicate

**Additional Skills:** Prompt engineering, RAG / Vector Search, API design, Product Development, UI/UX Design, Agile, Leadership