

Itwela Ibomu

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EDUCATION

Western Governors University (WGU)

Salt Lake City, UT

Bachelor of Science in Software Engineering in Software Engineering

Estimated Graduation: Expected Dec 2025

- Relevant coursework: Data Structures & Algorithms, Database Management, Software Design & Architecture, Machine Learning Foundations.
- Developed strong foundations in mathematics, programming, data management, and application design.

EXPERIENCE

Headstarter

Long Island City, NY

Software Engineering Fellow

Jul 2024 – Sep 2024

- Built and deployed 5 AI-driven web applications using React (TypeScript), Next.js, Tailwind, Firebase, Supabase, Clerk, LangChain, Pinecone, Docker, and Vercel.
- Scaled multiple web apps to 200+ active users by iterating on user feedback and improving performance and UX.
- Led development of CitySwipe which secured early investment interest and won multiple hackathons.

Dataforce

Atlanta, GA

AI Software Engineer

Apr 2024 – Jun 2024

- Improved captioning pipeline efficiency by 20% through workflow optimization and automation, increasing throughput and client satisfaction.
- Diagnosed and fixed recurring technical issues in production, reducing error rates and accelerating delivery timelines.
- Collaborated with cross-functional teams to refine requirements and ensure high-quality deliverables.

Forage (J.P. Morgan Virtual Experience)

Remote

Software Engineering Virtual Intern

Dec 2023 – Jan 2024

- Set up development environment and implemented live graph generation using JPMorgan Chase's open-source Perspective library.
- Completed assigned tasks on time and demonstrated ability to work with financial-data visualization tooling.

Dope Marketing

Minnesota

Software Engineer

Jul 2025 – Present

- Built an end-to-end AI Agent platform using React, Next.js, Ruby on Rails, and TypeScript integrating the OpenAI Agent SDK, Pinecone, and RAG services to assist account management workflows.
- Implemented secure user authentication, session management, and conversational interfaces enabling account teams to log in, run agent-assisted workflows, and access a centralized knowledge base.
- Designed and maintained a production knowledge-base pipeline: transcribed and processed call recordings (Fathom) into searchable embeddings, normalized and transformed noisy transcription data, and indexed vectors in Pinecone for retrieval.
- Developed custom tools and connectors so agents could call internal APIs and third-party tools (calendar, CRM, docs) to surface relevant, real-time information to users.
- Iterated on product with owner and stakeholders; conducted demos and incorporated account team feedback into weekly sprints to improve accuracy and adoption.
- Metrics: No formal metrics available yet; implemented core platform and knowledge pipeline for production use.

PROJECTS

CitySwipe (AI Travel & Vacation Planning)

Jul 2024 – Present

AI-powered vacation planning platform that recommends destinations, itineraries, and booking options using LLMs and vector search.

Technologies Used: Next.js, React, Vercel, Supabase, Gemini, Pinecone, LangChain

- Led product and engineering efforts; grew user base to 50+ active users and achieved thousands of social impressions.
- Secured early investment interest through strategic pitching and demonstrated product-market fit.

Job Tracker & Data Analysis Application

Jan 2024 – Apr 2024

Productivity tool to track job applications, automate workflows, and analyze application success metrics.

Technologies Used: Next.js, React, Node.js, PostgreSQL, Supabase

- Reduced average job application completion time by 50% using automation and streamlined UI.
- Implemented reporting dashboards to monitor application progress and outcomes.

RAG 'Rate My Professor' Chat Application

Aug 2024

Retrieval-Augmented Generation chat app that provides real-time professor ratings and reviews with vector search.

Technologies Used: Next.js, TypeScript, Pinecone, OpenAI

- Built real-time data fetching and vector search to improve accuracy and responsiveness of user queries.

MyJobKompas.com

Career planning and job application assistance web app with AI features for resume and job matching.

Technologies Used: Next.js, TypeScript, PostgreSQL, OpenAI, Pinecone

- Deployed a lightweight web app used by 10+ early users to test job-matching and tracking features.

Instant Video Caption Generator (Jelly Up!)

Aug 2024

Automated video captioning system using OpenAI Whisper and OpenCV to produce accurate subtitles.

Technologies Used: Next.js, React, Docker, OpenCV, OpenAI Whisper

- Developed backend processing pipeline for video transcription and caption embedding; judged 2nd place at Headstarter Hiring Hackathon.

Globetrotter AI (Voice-Activated Travel Assistant)

Aug 2024

Voice-activated AI assistant for travel planning integrating multiple travel APIs and voice recognition.

Technologies Used: Flask, Python, REST APIs, OpenAI

- Designed and implemented full-stack solution; won 1st place at Headstarter Hiring Hackathon for innovation and execution.

Lotus (Voice & Multimedia Article App)

Released Sep 18, 2025

React Native app that orchestrates multiple AI models to generate multimedia articles (text, images, audio) with added wellness features.

Technologies Used: React Native, Replicate, React, Audio Processing

- Implemented multi-step generation pipeline: parallel calls to text, image, and audio generators, post-processing, and bundling into a mobile-friendly article library.
- Built phone library, audio reader, step-tracker, guided meditation flow, music library, and hydration reminder; integrated offline caching and background audio playback.
- Managed App Store submission and release (released Sep 18, 2025).

SKILLS

Technical:	Python, JavaScript (React, Next.js, Node.js, TypeScript), React Native, PostgreSQL, Supabase, Firebase, Docker, Pinecone, LangChain, OpenAI, OpenCV, Replicate, Ruby on Rails
Additional:	UI/UX Design, Leadership, Teamwork, Agile methodologies, Product Development, Mentoring

ADDITIONAL INFORMATION

Interests: Mentoring, Investing, Crypto, Basketball, Gaming, Traveling, Teaching Piano, Guitar, Digital art

Languages: English (Native)

References: Available upon request