TOMIWA IBRAHIM

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EDUCATION

Illinois Institute of Technology   **January 2023 - May 2025**
Master's, Cyber Forensics and Security   *GPA: 4*

Illinois Institute of Technology   **January 2020 - May 2025**
Bachelor's, Information Technology

PROFESSIONAL EXPERIENCE

AIFS   **Chicago, IL, USA**
Software Engineer   *May 2024 - Present*
- Created and deployed high-performance Azure Function Apps powering production infrastructure for multiple B2B clients.
- Reduced infrastructure provisioning and content ingestion overhead by ~50% by automating the vector search pipeline (web scraping, embedding generation, and indexing in Qdrant vector database).
- Improved deployment reliability by implementing full test suites and fast-fail CI logic, catching issues before production releases.
- Developed GitHub Codespaces templates and Azure Bicep IaC scripts for repeatable cloud environment setups, speeding up onboarding of new projects.
- Ensured 99.99% uptime availability through asynchronous error handling mechanisms and automatic retry logic in distributed services.

First Bank   **Lagos, Nigeria**
Software Engineer Intern   *May 2023 - August 2023*
- Revived and deployed Nigeria's first-ever robotic bank assistant using OpenAI GPT-3.5 and custom voice/animation engines, enabling interactive customer service in branches.
- Delivered full end-to-end functionality (speech processing, NLP backend, and intuitive UI/UX) in just 2 months, despite lack of manufacturer support.
- Published a LinkedIn article documenting the project, "Unveiling FirstRobot: My Internship Journey in Android Robotics", to highlight challenges and solutions encountered (garnered significant positive attention).

PROJECTS & OUTSIDE EXPERIENCE

Infrastructure Automation and Full-Stack Development Project   **Chicago, IL, USA**
Team Lead, DevOps/Cloud Project   *January 2025 - May 2025*
- Led a team to build a fully automated cloud environment using Packer, Vagrant, Terraform, HashiCorp Vault, and DevContainers for consistent VM provisioning and deployment.
- Cut environment setup time by ~60% and improved security by integrating dynamic secret injection (Vault) into the CI pipeline, eliminating manual credential management.
- Built a custom authentication flow with FastAPI (backend) and Electron.js (frontend), deploying behind an NGINX reverse proxy with session-based routing to mimic Next.js-style seamless navigation.
- *Link to project*

Soteria   **Chicago, IL, USA**
Software Team Lead   *January 2024 - May 2024*
- First-place hackathon victory: Outperformed 20+ competing teams to win 1st place by developing an IoT-driven fire evacuation guidance system in under 3 months.
- Real-time IoT integration: Delivered millisecond-latency emergency routing by integrating smoke sensors with a WebSocket-enabled backend, providing dynamic evacuation paths and alerts in real time.
- *Link to project*

SKILLS

Skills: Python, FastAPI, Node.js, Express.js, Electron.js, Packer, Terraform, Nginx, Postman, TypeScript, GraphQL, R, Excel/Numbers/Sheets, React.js, LangChain, MongoDB, HTML/CSS, Git, GitHub, Azure DevOps, Agile, Blender, Chart.js, CockroachDB, Data Analysis, Data Structures & Algorithms, Discrete Math, Django, Docker, Elasticsearch, Figma, Firebase, gRPC, JavaScript, Linux/Unix, Windows, Three.js, React

LEADERSHIP AND HONORS

- Dean's List Honors - Spring 2025, Fall 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Spring 2024
- Team leader and Coordinator of OSINT School Project, Fire Alarm System - 2022-2024
- African Student Organization IIT, Event Coordinator - 2019 - 2020
- Certificate of Distinction for exemplary performance in the Canadian Math Competition(Waterloo)
- Certificate of Distinction for exemplary performance in the American Math Competition(AMC)
- Certificate of Distinction for exemplary performance in the Nigerian Math Olympiad
- American Math Competition Gold Medal - 2017 / 2018