

Yonathan Wagaye

Abu Dhabi, UAE | +971565154168 | yaw2002@nyu.edu | [GitHub](#) | [yonathan-wagaye.dev](#)

PROFESSIONAL SUMMARY

NYU Abu Dhabi Computer Science graduate and full-stack software engineer with experience building and shipping research and commercial web applications. Proficient in TypeScript, Python, Node.js, Express.js, React, FastAPI, Flask, and PostgreSQL, with experience in API design, data processing pipelines, real-time integrations, and cloud-backed application architecture.

EDUCATION

New York University Abu Dhabi

BSc, Computer Science. Minor: Applied Mathematics.

May 2025

Abu Dhabi, UAE

- **Coursework:** Data Structures, Algorithms, Software Engineering, Web Technologies, Applied Machine Learning, Computer Networks, Computer Vision, Operating Systems

EXPERIENCE

EasyEyes Research Team

Oct 2024 - Present

Research Software Engineer

- Develop and maintain a research-grade vision experiment compiler as part of a team, owning key application enhancements that enable researchers to design and run precision vision studies using robust software testing practices.
- Build a Firebase-backed media library for experiment assets, designing the storage architecture and frontend integration.
- Develop a state manager to synchronize a vision experiment platform with its distance calibration app, enabling reliable setup.
- Conduct data analysis pipelines using R and Shiny to extract insights and generate visualizations from experimental datasets.

Al Fahad Trading Enterprises L.L.C.

Aug 2024 - Dec 2024

Full Stack Engineer, Intern

- Contributed to backend development using Node.js, Express.js, and PostgreSQL for the UniMentor tutor-student platform.
- Integrated RESTful APIs and applied API design principles to shape application architecture and enable reliable frontend-backend communication.
- Developed responsive React components and implemented Redux for scalable state management across the platform.

Applied Interactive Multimedia Lab

Feb 2024 - Dec 2024

Web Developer, Research Assistant

- Built a data processing tool using Flask and React to handle experimental datasets for an ADHD identification research project.
- Integrated a QT robot with a web application via a JavaScript API, enabling real-time robot-system communication.
- Developed dynamic, responsive experiment interfaces in React for structured attention-pattern data collection.

PROJECTS

AI Medical Assistant - Symptom Analysis and Triage System

- **Tech Stack:** Next.js, FastAPI, PostgreSQL (pgvector), OpenAI GPT-4o-mini
- Engineered a FastAPI backend with PostgreSQL and pgvector, designing scalable APIs and embedding-based retrieval workflows with OpenAI models for accurate symptom analysis and structured recommendations.
- Developed an interactive Next.js frontend delivering AI-generated symptom assessments through intuitive user workflows.

Polyglot - Translation Management System for Research Applications (In Progress)

- **Tech Stack:** Next.js, FastAPI, PostgreSQL, Redis, Docker
- Building a full-stack translation management system using Next.js and FastAPI to help research teams manage multilingual content through a centralized platform.
- Designing a PostgreSQL-backed data architecture with Redis-based background job processing, versioned publishing, and CDN-delivered translation files to support scalable localization workflows.

DevTrack - Developer Task and GitHub Activity Manager

- **Tech Stack:** React, Node.js, PostgreSQL
- Built and integrated RESTful APIs with a Node.js backend and PostgreSQL database, enabling scalable data management and seamless frontend-backend communication.
- Designed responsive React interfaces and reusable UI components for task and GitHub activity tracking with real-time data visualization.

SKILLS

- **Languages:** TypeScript, Python, R
- **Backend:** Node.js, Express.js, FastAPI, Flask, API Design
- **Databases and Infrastructure:** PostgreSQL, Redis, Docker, Firebase
- **Frontend:** React, Next.js, Redux, React Native
- **Other:** Shiny, Software Testing