Edom Yared Belayneh

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EDUCATION

Central Michigan University, Mount Pleasant, MI — **Expected Graduation: May 2026**

Bachelor of Science in Computer Science & Honors Student — GPA: **3.95/4.0**

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Computation Analysis & Simulation

SKILLS

- **Programming Languages:** Java, Python, C, C#, Swift, SQL, Node.js, React
- **Development Environments:** Eclipse, Jupyter Notebook, VSCode, XCode, Arduino, Unity, Google Colab
- **Tools:** SQL Pad, GitHub, AI Integration, Firebase, Stripe, Vercel, Clerk, Pinecone, Streamlit, Kaggle, ML Models

TECHNICAL EXPERIENCE

Software Engineering Resident — July 2024 – Present

Headstarter AI, Mount Pleasant, MI

- Delivered AI and full-stack solutions, including 5+ apps, engaging 1,000+ users with Next.js, OpenAI, and StripeAPI.
- Led 3 fellows in MVC projects and created 300+ GitHub commits, building neural networks and deploying apps on AWS in 7-day sprints.

Machine Learning Engineering Intern (Research Assistant) — May 2024 – August 2024

National Science Foundation – CMU, Mount Pleasant, MI

- Developed Python algorithms to solve incompressible Navier-Stokes equations for buoyancy-driven fluids.
- Engineered programs that simulate Physics-Informed Neural Networks and Physics-Informed DeepONets for Boussinesq and Navier-Stokes Equations, reducing computational time by 23.4% compared to traditional methods.

Undergrad Software Engineering Teacher Assistant & Tutor — August 2023 – May 2024

Central Michigan University, Mount Pleasant, MI

- Conducted weekly review sessions for 20-30 students, resulting in a 10% increase in average class performance.
- Provided tutoring in Java programming basics, achieving a 14% average improvement in student exam grades.

PROJECTS — Github Profile

Brain Tumor Classification ML Model – *Utilized Python in Google Colab and Streamlit | Github Link* — November 2024

- Built a Streamlit app for neurologists to classify MRI images as glioma, meningioma, pituitary tumor, or no tumor.
- Leveraged Google AI API for enhanced scan insights, highlighting focal areas and providing additional tumor details.
- Achieved *99.93% train accuracy* in brain tumor classification using Xception and Custom CNN models on MRI data, applying *computer vision* techniques with Kaggle datasets.

AiQuickDoc – AI Integrated Full-Stack Web App – *Utilized Node.Js in VS Code | Github Link* — August 2024

- Developed a document interaction platform with Next.js and Material-UI, gaining 248 signups in the first week.
- Implemented the entire frontend and core backend, integrating 7 technologies in over 5,000+ lines of code.
- Engineered AI-driven document summarizer, automated flashcard generator, and an intelligent chat interface for document Q&A.

AI Flashcard Generator Full-Stack Web App– *Utilized Node.Js and React in VS Code | Github Link* — August 2024

- Engineered an AI flashcard generator app using Node.js, GroqCloud, and Vercel, optimizing user learning experiences.
- Implemented Groq Cloud for AI-generated flashcards and integrated Stripe for seamless payment processing.
- Designed and implemented a responsive, user-friendly interface with Material-UI, improving user experience and engagement, achieving 17 daily users and 82 new users in the first week.

CERTIFICATES

CodePath -Technical Interview Prep — August 2024

- Acquired the TIP pathway to excel in technical interviews and solve industry challenges with CodePath's resources.

Global Tech Experience – Python & SQL — October 2023

- Proficient in SQL for data extraction, analysis, and reporting, driving data-driven decision-making.

STUDENT ORGANIZATIONS & LEADERSHIP EXPERIENCE

- **ColorStack,** Fellow — July 2024 – Present
- **Rewriting The Code (RTC),** Member — March 2024 – Present
- **African Students Union (ASU),** Secretary — February 2024 – Present
- **Women In Technology (WIT),** Vice President — February 2023 – Present
- **National Society of Black Engineers (NSBE),** Member — August 2024 - Present