**Edom Yared Belayneh**

[edombelayneh.com](mailto:edombelayneh.com) | (702) 886-3506 | belayneh1ey@gmail.com | [linkedin.com/in/edombelayneh](http://www.linkedin.com/in/edombelayneh)

**EDUCATION**

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

Bachelor of Science in Computer Science & Honors StudentGPA: **3.97/4.0**

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**](https://github.com/edombelayneh)

**Brain Tumor Classification ML Model –** *Utilized Python in Google Colab and Streamlit |* [*Github Link*](https://github.com/edombelayneh/BrainTumorClassification.git) 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*](https://github.com/edombelayneh/AiQuickDoc.git) 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*](http://github.com/edombelayneh/AI-Flashcard-Generator) 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 PrepAugust 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