Oluwatobi Olajide

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EDUCATION

Morgan State University **Baltimore, Maryland**
B.S in Computer Science *Expected Graduation, May 2027*
  - **Related Coursework:** Computer Systems and Digital Logic, Data Structures and Algorithms

SKILLS

Programming: Python, C, C#, JavaScript, Typescript
Libraries: Express, React, Flask, Next.js, Django, Jquery, Node.js, Pandas
Tools: Mongo, Firebase, Git, Docker, Bash, Linux, AWS, Google Maps Platform, Pinecone, Nginx, Auth0

Experience

Cosmos (Python, Flask, Expresss.js, Mongo, Typescript, Node.js, React)

Full Stack Engineer *September 2024*
- Built a scalable Python backend with Mongo Engine ORM for data modeling of messages, events, and notifications. Integrated Redis Queue to optimize background tasks, achieving an 80% speed increase and reducing event creation wait times.
- Engineered real-time communication with Websockets for instant messaging and live notifications, and optimized lookups with a Trie data structure and Redis caching for faster data access.
- Containerized the application using Docker, configured Nginx as a reverse and SSL proxy to enhance performance and security. The application has 20 active users, with about 10 events created daily.

PROJECTS

Project Space (Python, Flask, Mongo, Typescript, Next.js)

Backend Engineer *October 2024*
- Developed a web application for users to find and collaborate on projects, allowing sign-ups, interest additions, one-minute reel recommendations, and project pitch postings.
- Implemented a scalable backend using Flask and Mongo Engine ORM, with Redis caching frequently accessed data, improving system performance by 90%.
- Switched from Sentence Transformer to Open AI embeddings, reducing embedding creation time from 1 minute to under 1 millisecond, and integrated Pinecone for AI-powered searches on project data.
- Created Typescript types to avoid undefined values, Context API for user context management, and Websockets for real-time messaging.

Tic Tac Toe (React, SCSS, JavaScript, Firebase)

Full Stack Engineer *June 2024*
- Developed a responsive website with React and SCSS, ensuring optimal performance and usability, with over 5 daily gameplays and 30 active users.
- Utilized Firebase snapshots to manage and simulate real-time interactions between users, supporting both multiplayer and single-player modes with AI opponents.

AWARDS

Web Development Competition **Baltimore, Maryland**
Hosted by Google and Society for Advancement of Computer Science (SACS) *Dec 2023*
- Secured 1st place as part of a three-member team for an outstanding web application project (Teachable).

Google HBCU Hackathon **D.C, Washington**
Hosted by Google *March 2024*
- Achieved a top 6 placement as part of a four-member team for an outstanding application (Culture Connect).

Morgan Hacks **Baltimore, Maryland**
Hosted by Morgan State University *April 2024*
- Achieved a top 6 placement as part of a four-member team for an outstanding application (Fast Track).