Michael Mosuro

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EDUCATION

Morgan State University (MSU)   **Baltimore, MD**
Bachelor of Science (**B.S.**) in *Computer Science*

RELEVANT COURSES: Data Structure and Algorithms, Computer systems and Logic, Calc I & II, Operating Systems, Computer architecture

SKILLS

- Languages: Python
- Web Technologies: HTML, CSS, JavaScript
- Frameworks: Flask, Express, NodeJS
- Databases: SQL(MySQL, Mysql Workbench)

RESEARCH EXPERIENCE

Machine Intelligence and Data Science (MINDS)   Sep 2024 - Present
*Undergraduate Research Assistant (**Morgan State University**)*
- Developed machine learning models achieving **95% accuracy** in predicting risk factors for coronary artery disease and type 2 diabetes.
- Conducted **exploratory data analysis (EDA)** with **NumPy** and **Pandas**, refining large datasets by eliminating redundant features and extracting actionable insights
- Engineered **data-driven visualizations** (heatmaps, statistical plots) to analyze **socioeconomic and geographic factors** influencing health disparities.

PROJECTS

Codepath Web 102/intermediate web development course
- Participating in an intensive full-stack development curriculum, gaining proficiency in React and API integration while executing over 10 hands-on projects that simulated real-world application scenarios.
- The curriculum covers key web development topics such as React, APIs, database integration, and deployment, equipping students with industry-relevant skills.

SAGE: Smart wearable device for Assisted Geriatric monitoring in Elders
- Containzered the application using docker to store data in Postgresql and query HRV health data efficiently, optimizing retrieval speed and scalability.
- Developed a **real-time health monitoring dashboard** with **Next.js** and **Tailwind CSS using WebSockets**, providing an intuitive UI for medical professionals.
- Implemented **secure authentication** with **FastAPI**, ensuring user data privacy and system integrity.

MetFriX: (Node.js, HTML, CSS, SQL, Express)
- Engineered a **responsive, dynamic UI** using **HTML, CSS, and JavaScript** to display real-time movie data fetched from an external API.
- Composed and optimized a **MySQL relational database**, improving query performance for user profiles, movie data, and reviews.
- Established **user engagement features** like search, personalized recommendations, and friend connections, enhancing retention.

BearBite Food E-commerce Web App(**HTML, CSS, JS, Flask, MySQL,** and **SqlWorkbench)**
- Designed a **scalable, interactive front-end** with **HTML, CSS, and JavaScript**, improving **user session engagement by 30%**.
- Produced a **Flask-powered backend** with secure user authentication and **MySQL** integration, reducing cart update latency by **20%**.