

Mahlaki Henry

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Technical Skills

Languages: Java, Python, MySQL, PostgreSQL, JavaScript, R

Developer Tools: Git, Docker, Visual Studio, Google Colab, Jupyter Notebook

Libraries: Scrapy, Selenium, Pandas, PyTorch, Skicit-learn

Education

University of Baltimore/Maryland College Catonsville, MD

Master of Professional Studies in Data Science

Aug. 2025—May 2027

Mount St. Mary's University Emmitsburg, MD

Bachelor of Science in Computer Science, Minors in Cybersecurity, Data Science, & Mathematics

May 2025

Experience

Information Technology/Audio Visual Support Specialist

August 2022 – Present

Mount St. Mary's University

Emmitsburg, MD

- Installed, configured, and maintained audio-visual equipment, including sound systems and video tools
- Assessed and troubleshoot computer and classroom problems brought by students, faculty, and staff
- Collaborated with IT teams every 3 months to integrate AV systems with existing technology and infrastructure
- Reference: Lisa Reed 301-401-8681 lreed@msmary.edu

SOC Machine Learning Research Intern

January 2025 – May 2025

Mount St. Mary's University

Emmitsburg, MD

- Conducted research on the integration of open-source and custom machine learning solutions to enhance SOC workflows and efficiency
- Collaborated with SOC analysts to analyze existing processed and identify areas for machine learning application.
- Designed and implemented proof-of-concept machine learning models, evaluating their effectiveness in real-world security scenarios
- Documented research finding and provided actionable recommendations to SOC managements for improving operational accuracy.
- Reference: Abigal Godard godard@msmary.edu

Undergraduate Research Assistant June 2024 – August 2024 *Mount St. Mary's University Emmitsburg, MD*

- Developed a pipeline for data scraping, storage, and training a generative AI (genAI) to recommend cancer research experiments
- Utilized PyTorch, Skicit-learn, pandas, numpy, Docker, MySQL, SSH, Python, Javascript, Llama-3 8b
- Explored GitHub repositories to familiarize with new libraries and improve the workload of the model
- Worked with a team of 4 members and an advisor to develop a generative AI pipeline for cancer experiment analysis • Reference: Daniel Salinas Duron d.salinasduron@msmary.edu

Projects

Movie Recommendation System | *Python, MySQL, Requests*

July 2024 – August 2024

Designed and implemented a recommendation system to suggest movies based on user preferences and genre similarity

Developed a back-end script to fetch and pre process movie data from an external API using the Requests library

- * Built a custom K-Nearest Neighbors (KNN) model to recommend movies by calculating cosine similarity between user preferences and available movie genres

Utilized MySQL to store and query movie metadata, ensuring efficient retrieval for real-time recommendations

Flight Prices Analysis Model | *Python, PostgreSQL, Selenium, pandas, Plotly, Dash*

August 2024 – Present

Built machine learning models to analyze historical flight price trends and generate predictive insights for optimal booking times.

Developed web scraping pipelines using Selenium to collect real-time flight price data from multiple airline websites

Designed and implemented a PostgreSQL database to store and manage large datasets of extracted flight prices efficiently

Deployed the model as a user-friendly web application using Plotly's Dash, enabling users to visualize trends and receive dynamic predictions