

Mahlaki Henry

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SKILLS

Languages: Java, Python, SQL, JavaScript, R

Tools: Git, Docker, Visual Studio Code, Google Colab, Jupyter Notebook, MySQL, PostgreSQL

EDUCATION

Mount St. Mary's University

Emmitsburg, MD

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

Graduation Date: May 2025

University of Baltimore Maryland County

Catonsville, MD

Masters of Professional Studies in Data Science

Graduation Date: May 2027

WORK EXPERIENCE

Mount St. Mary's University

Emmitsburg, MD

IT/AV Support Specialist

Aug 2022 - May 2025

- 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

Mount St. Mary's University

Emmitsburg, MD

SOC Machine Learning Research Intern

Jan 2025 - May 2025

- 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

Mount St. Mary's University

Emmitsburg, MD

Undergraduate Research Assistant

Jun 2024 - Aug 2024

- 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
- Worked with a team of 4 members and an advisor to develop a generative AI pipeline for cancer experiment analysis

PROJECT EXPERIENCE

Flight Price Analysis Model

Emmitsburg, MD

Aug 2024 - May 2025

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

Personal Finance AI Agent

May 2025 - Present

- Developed an AI chatbot capable of answering natural-language questions over monthly bank statements by parsing unstructured PDF financial documents into structured DataFrames
- Implemented data-to-text transformation and embeddings pipeline (using SentenceTransformers + FAISS) to enable semantic search and retrieval-augmented generation (RAG)
- Built end-to-end workflow for transaction parsing, embedding storage, and LLM-powered Q&A, demonstrating potential for personalized financial analytics and automation.