

## EDUCATION

**University of Maryland Baltimore County**  
Bachelor of Computer Science

Baltimore, MD  
Expected May 2027  
3.5 GPA

**Relevant Coursework:** CMSC201(Python), CMSC201(C++), Calc 1, Calc 2, Discrete Math

**Societies:** EESA (Ethiopian Eritrean student association), NSBE, Software Development and Administration Club

## TECHNICAL SKILLS

**Languages:** Python, C++, Java, JavaScript, SQL, HTML, CSS

**Technologies:** TensorFlow, scikit-learn, Flask, TSDB, MQTT, Git, PyTorch, Linux OS, Pandas, React, Node.js

**Concepts:** Artificial Intelligence, Machine Learning, Natural Language Processing, Data Analysis, IoT, REST APIs, Data Management, Compiler Theory, Prompt engineering, Edge Computing

## WORK EXPERIENCE

**Nvidia**

Summer Bridge Program

Remote  
May 2024 – Now

**OmniSyncAI**

Full stack Software Engineer intern

Remote  
May 2024 – Now

- Currently working developing Account setup for the company. Implementing Business account setup, Ability to invite team member, 2FA verification, AI recommendation for business with Node.js, React, and PostgreSQL

**Radical AI**

Artificial Intelligence Engineer intern

Remote  
Apr 2024 – Now

- As an Artificial Intelligence Engineer at Radical AI, I am leveraging technologies such as OpenAI and Google Gemini to develop ReX, an AI coach who serves as a steadfast career companion for learners, offering personalized coaching, mentorship, and support throughout the various phases of their career lifecycle.

**UMBC**

Research Assistant

Baltimore, MD  
Aug 2023 – Now

- Collaborated within the DAMS research lab(<https://damslabumbc.github.io/>), specializing in IoT, where I actively engaged with IoT devices and systems while developing code to extract valuable insights from sensor data.
- Developed algorithms for IoT device data analysis, focusing on occupancy detection, and environmental monitoring.
- Designed server infrastructure on Linux cloud OS, managed databases (SQL and INFLUXDB), Utilized MQTT broker (EMQX) for communication between lidar sensor and implemented RESTful APIs for seamless data access.
- Leveraged the SARIMA (Seasonal AutoRegressive Integrated Moving Average) algorithm to predict future trends and patterns in sensor data to forecast occupancy levels and environmental conditions and inform proactive decision-making in IoT environments.
- Integrated edge computing to optimize server processing for real-time data handling from IoT sensors.

## PROJECTS

**Generative AI for Artistic Collaboration**

Skills: Python, PyTorch/TensorFlow, Generative Adversarial Networks (GANs), Neural Networks, Reinforcement Learning, Slack API, Discord API, Style Transfer, Model Training and Evaluation

- In this project, I made an AI system that collaborates with artists to create new forms of digital art. The system uses techniques such as Generative Adversarial Networks (GANs), style transfer, and reinforcement learning to integrate different artistic styles and change based on artist feedback. The AI can understand and incorporating artistic input, producing artworks that reflect a fusion of the artist's and AI's creativity. The application is built with Python, utilizing PyTorch for model development and Slack/Discord APIs for interaction.

**YouTube Comments Extraction and Sentiment Analysis Project**

Skills: Python, Prompt engineering, Natural Language Processing (NLP), Machine Learning, Data Preprocessing, API usage, Text Analytics

- I created a Python-based project leveraging the YouTube Data API to gather video comments for sentiment analysis. Utilized advanced NLP techniques and machine learning models with TensorFlow and scikit-learn, enhanced by prompt engineering with the LLaMA Index. Provided content creators with insights into viewer reactions through an intuitively designed interface, aiding in strategic optimization of digital content

**Advanced Connect4 AI with Reinforcement Learning**

Skills: Python, PyTorch, Reinforcement Learning, Neural Networks, Flask, API Development, Noisy Nets, Prioritized Experience Replay, Dueling Network Architecture

- I developed an AI for playing Connect4 using advanced reinforcement learning techniques, including Distributional Dueling Networks, Noisy Nets, and Prioritized Experience Replay, all with PyTorch. Integrated into a custom game environment and connected to a real-time interface via a Flask API. Optimized for CUDA-enabled GPUs, with performance metrics monitored using TensorBoard. Implemented opponent modeling to enhance adaptability, significantly improving performance against various strategies and players.