Daniel Ladipo

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Education

The Pennsylvania State University — State College, PA
Bachelor of Arts in Computer Science, Minor in Cybersecurity — *Aug. 2024 – May 2028*

Experience

Nittany AI Machine Learning Bootcamp — Aug.2024 – Present
Penn State — *State College, PA*

- Created 6 AI-driven projects over 8 weeks using Python, implementing machine learning models like linear regression, neural networks, and retrieval-augmented generation (RAG).
- Worked with a multidisciplinary team to explore the environmental benefits of AI, focusing on sustainable technology applications.

Roblox Developer Forum Coder — Oct.2020 – Nov.2023
South Cobb HS — *Atlanta, GA*

- Developed a complete user interface for an MMORPG game with 89,000+ visits using Lua, elements from the server script service, and the user input in ROBLOX Studio.
- Collaborated with other developers and participated in the ROBLOX Developer Forum, sharing expertise, offering guidance, and contributing to discussions on game development techniques and troubleshooting.

Multicultural Innovators in Computer Science (MICS) — Sep.2024 – Present
Penn State University — *State College, PA*

- Co-founded MICS to promote diversity and support underrepresented students in computer science by providing mentorship and a strong community network.
- Developed the official website for MICS using HTML, CSS, and JavaScript to showcase the organization's mission, executive board, upcoming events, and resources.
- Created and managed MICS's Instagram and LinkedIn pages, implementing strategies to increase visibility and engage members through posts.

Projects

MNIST Handwritten Digit Classification from Scratch — Sep. 2024

- Implemented a machine learning algorithm from scratch to classify handwritten digits using NumPy, Pandas, and Matplotlib.
- Processed 60,000+ training images by normalizing pixel values, vectorizing input data, and splitting datasets for accurate model training and evaluation.
- Built a logistic regression model, leveraging gradient descent optimization and cross-entropy loss, to classify the digits with a final test accuracy of 85% on 10,000 test images.

Iris Flower Classification Project — Sep. 2024

- Created a logistic regression model to classify Iris flower species with 98% accuracy using Python and scikit-learn.
- Visualized data using Seaborn and Matplotlib to identify patterns and correlations between flower features.
- Tuned model parameters to enhance prediction accuracy and reduce classification errors.

Best RAG Chatbot Challenge — Sep. 2024

- Developed a Retrieval-Augmented Generation (RAG) chatbot using Python and Natural Language Processing (NLP) to retrieve relevant information from the Penn State ICDS user guide and generate human-like responses to user questions.
- Developed a user-friendly Streamlit interface for easy input, real-time responses, and visual elements to enhance user experience.
- Collaborated with a team to manage project scope and deliver a functional prototype within the 48-hour hackathon timeframe.

Technical Skills

Languages: C++, Python, JavaScript, LUA and SQL Tools Technologies: GitHub, HTML/CSS, and VS Code
Coursework: Programming and Computation 1: Fundamentals, Differential Calculus, Linear Algebra and Discrete Mathematics (Khan Academy), Harvard CS50
Developer Tools: Git,VS Code, Pandas, NumPY, PyCharm, Jupyter