

Daniel Ladipo

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EDUCATION

The Pennsylvania State University

Bachelor of Arts in Computer Science, Minor in Cybersecurity

State College, PA

Aug. 2024 – May 2028

EXPERIENCE

Nittany AI Machine Learning Bootcamp

Penn State

Aug 2024 – Present

State College, PA

- Built 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

South Cobb HS

Oct.2020 – Nov.2023

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.

Sea, Land, and Air Robotics Competition

Penn State University

Jun.2024 – Jul.2024

State College, PA

- Collaborated with a team of five to design and program an autonomous VEX robot with capabilities including obstacle avoidance, line-following, and debris collection.
- Delivered a structured presentation outlining the programs, technical challenges, and execution steps that brought the robot's functionality to life.

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, Visual Studio, PyCharm, Jupyter

Libraries: pandas, NumPy, Matplotlib