

# 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

## PROFESSIONAL EXPERIENCE

### Nittany AI Machine Learning Bootcamp

Penn State

Aug.2024 – Present

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

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.

## LEADERSHIP EXPERIENCE

### Multicultural Innovators in Computer Science (MICS)

Penn State University

Sep.2024 – Present

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.

### Choir Master

MFM House of Freedom

Jun.2021 – Aug.2024

Lithia Springs, GA

- Served as the choir master and pianist, leading multiple songs in praise and worship during Sunday services.
- Created and arranged original gospel compositions that have been featured on Christian music albums.

## PROJECTS

### Thrive Together

Nov. 2024

- Developed "Thrive Together," a mental health resource website for college students, using HTML, CSS, and JavaScript.
- Designed an interactive platform to provide tools and resources for stress management, career planning, and awareness.

### 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.

## 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