Jack Mangione

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EDUCATION

University of Notre Dame | Notre Dame, IN   May 2026
Bachelor of Science | Computer Science   *GPA: 3.63/4.0*

Notre Dame London Gateway | London, England   July-August 2023
Balanced two rigorous courses with cultural immersion, navigating language barriers in multiple countries.

Relevant Coursework
Fundamentals of Computing, Discrete Mathematics, Data Structures, Logic Design, Systems Programming, Intro. to Linear Algebra & Differential Equations
Online Courses: Python for Data Science and Machine Learning Bootcamp, Udemy   June-July 2023

PROJECTS

Handwritten Digit Recognition Using a Custom Neural Network | Notre Dame, IN   September 2023
- Developed a feedforward neural network in Python from the ground up, consistently achieving a 93% classification accuracy rate on the MNIST dataset without using external machine learning libraries.
- Optimized the model through hyperparameter tuning and experimentation with various network architecture configurations, including variations to nodes, layers, learning rate, and activation functions.

Customizable Chatbot with Text Similarity Features | Albany, NY   August 2023
- Built a Python chatbot that assumes a user-defined role, utilizing OpenAI's GPT API.
- Added text similarity features to recognize and execute user intents like "end conversation" or "reset conversation memory".

MATLAB Data Visualization App   May 2023
- Collaborated with a project partner to program and present an app that summarized a large deforestation dataset with four interactive visualizations, including bar charts, pie charts, and a map, each with interactive menus.

Salesforce CRM Project - Student International Business Club   Spring 2023
- Collaborated with a team of five students and Salesforce mentors to assess simulated customer needs. As solutions engineers, we demonstrated and pitched a CRM solution to a panel of Salesforce professionals at the semester's end.

PROFESSIONAL EXPERIENCE

Target | Albany, NY   Summer 2023
Fulfillment Expert
- Enhanced guest experience through efficient item retrieval, sorting, and packing for pickup or delivery, while providing personalized assistance to guests.

Schuyler Meadows Club | Albany, NY   Summers 2019-2022
Country Club Lifeguard
- Collaborated efficiently with other lifeguards and staff to ensure the safety and satisfaction of patrons by constantly surveying the pool area, enforcing rules, treating injuries, supervising children, and maintaining pool equipment

Tri City Rentals | Albany, NY   Summer 2022
Apartment Complex Lifeguard
- Maintained safe pool conditions by constantly surveying the pool area, enforcing rules, maintaining/logging a safe pool chemistry, and assisting apartment residents with general questions.

SKILLS AND INTERESTS

Technical Skills: Proficient: Python, C, C++, Tensorflow/Keras, Linux, Git, Excel | Familiar: PyTorch, HTML, CSS
Interests: Running, reading, weightlifting, golf, investing