William O'Donnell

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OBJECTIVE

A passionate Computer Science student with a minor in Data Science. Looking for a position that allows me to gain industry experience while expanding my communication, programming, and problem solving skills.

EDUCATION

Montclair State University   Montclair, NJ
Bachelor of Science in Computer Science, Minor in Data Science   *Sep. 2021 – May 2025*
- 3.643 / 4.000 GPA
- Presidential Scholar & University Dean's List

EXPERIENCE

Machine Learning Research Assistant   Feb. 2025 – Present
Montclair State University   *Montclair, NJ*
- Implemented and evaluated vehicle detection and image de-hazing models in Python to compare performance in terms of accuracy and computational efficiency.
- Reviewed and analyzed scholarly research to inform model selection and contribute original insights to the field.
- Collaborated in a four-person team to write a research paper on YOLOv8-based vehicle detection enhanced with image de-hazing for real-time traffic management applications.

Generative AI Intern   June 2024 – Aug. 2024
Cognizant   *Remote*
- Fine-tuned a large language model with parameter efficient techniques, resulting in a 4% increase in accuracy when analyzing sentiment analysis.
- Compared the performance of ResNet, AlexNet, and VGG CNN architectures by analyzing the accuracy, training time, and computational efficiency.
- Collaborated with industry professionals to improve my python proficiency, gain AI development knowledge, and learn about the tech industry.

Programming Coach   Nov. 2022 – April 2023
The Coder School   *Short Hills, NJ*
- Taught Python, Java, and HTML/CSS programming to students by creating an engaging learning environment tailored to students' skills.
- Enhanced project communication skills by conducting in-depth program analyses, ensuring effective information exchange and productive collaboration with students.

PROJECTS

Analyzing Higher Education and Poverty in the United States   March 2025 - April 2025
- Cleaned and wrangled datasets on higher education and poverty in the United States to prepare them for analysis.
- Merged datasets and computed aggregate statistics for further analysis.
- Visualized trends and correlations using choropleth maps, bubble maps, scatter plots, and histograms.

DishDash   Jan. 2025 - April 2025
- Collaborated in a four-person team to develop a full-stack recipe application with a user-friendly interface for storing and accessing recipes.
- Designed a clean and responsive front-end using TailwindCSS.
- Implemented full recipe customization functionality with Python and Flask.
- Integrated MongoDB to store user profiles and login data, enabling cross-session recipe access.

TECHNICAL SKILLS

Languages: Python, SQL, C, JavaScript, Java, CSS
Libraries & Frameworks: NumPy, Pandas, Matplotlib, PyTorch, OpenCV, Scikit-learn, Flask, React, TailwindCSS
Developer Tools: Github, Tableau, Jupyter Notebooks, MongoDB, phpMyAdmin, VSCode