

Alexander Young

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Available Immediately

Professional Summary

Applied Mathematics graduate with hands-on experience in data science, analytics, and predictive modeling. Skilled in machine learning, data analysis, and transforming complex information into actionable solutions. Proficient in Python, R, MATLAB, and SQL. Recognized for strong analytical thinking, problem-solving, and clear communication. Ready to deliver immediate impact across a variety of industries.

Relevant Professional Experience

OpenHub “Garage for Innovators”

Data Scientist Intern

May 2025 - Present

- Collaborated with an international, multidisciplinary team of top professionals in Belgium, gaining exposure in advanced data science and engineering methodologies.
- Built predictive machine and deep learning models for Fluxys to proactively mitigate corrosion risks in Europe’s natural gas pipelines.
- Developed neural networks for Novobiom to optimize substrate combinations, enhancing fungal bioremediation of industrial pollutants like TPH.

University of North Carolina at Wilmington

Teaching Assistant

January 2024 - July 2024

- Implemented data-driven teaching strategies, elevating exam scores by 10% across three Engineering Calculus courses.
- Applied analytical skills to evaluate trends, act on insights, and enhance student comprehension.
- Arranged a mentorship program for 100+ students, raising engagement and motivation.
- Refined communication skills for complex concepts to engage stakeholders, an essential skill in analytical presentations.

Great Walls of Water: The Pandemonium and Phenomena of Rogue Waves

Researcher

January 2024 - May 2024

- Coordinated a team investigating rogue wave behavior using the NLSE and Gerstner’s equations, comparing model outputs to known solutions and improving simulation accuracy by 15%.
- Utilized Fast Fourier Transforms (FFT) to build MATLAB models simulating wave solutions, raising computational efficiency by 20%.
- Co-authored a scholarly article and presented findings to 300+ attendees, showcasing strong communication and technical translation skills.

Relevant Professional Experience (Continued)

MCM / ICM Math Modeling Competition hosted by COMAP

Team Leader

April 2024

- Led a team analyzing psychological momentum in sports, leveraging R to process large real-world datasets of 500+ variables.
- Conducted rigorous data wrangling and statistically significant variable selection for robust, data-driven models.
- Devised a predictive model in MATLAB, boosting model accuracy by 20% over baseline.

Education

Bachelor of Science, Applied Mathematics

University of North Carolina Wilmington,

July 2024

- Recognized on the Dean's List by the College of Science and Engineering for outstanding academic performance.

Skills

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| Data Analysis: | - Statistical Analysis, Data Wrangling, Statistical Techniques |
| Machine Learning: | - Predictive Modeling, Classification, Regression, Keras Extreme Gradient Boosting, Clustering, SciPy, Scikit-Learn, |
| Data Visualization / Analytics: | - Excel, Markdown, Notebooks, Dashboards, Python |
| Data Management: | - Big Data, Cleaning, Pre/Post Processing, Data Storytelling |
| Database Management: | - SQL, MySQL, Cloud Databases, RDBMS |
| Programming: | - Python, R, MATLAB, HTML, JavaScript |
| Version Control: | - Git, GitHub |
| Mathematical Software: | - R Studio, Maple, MATLAB, Simulink |
| Soft Skills: | - Team Collaboration, Problem Solving, Analytical Thinking |
| Languages: | - English (<i>Native</i>), German (<i>Speaking, Reading, Writing</i>) |

Certifications

IBM: Machine Learning with Python (with Honors) **January 13, 2025**

Machine Learning, Clustering, Regression, classification, SciPy and Scikit-Learn

IBM: Data Analysis with Python **December 16, 2024**

Model Selection, Data Analysis, Python Programming, Data Visualization, Predictive Modeling

IBM: Databases and SQL for Data Science with Python (with Honors) **November 8, 2024**

Python, Cloud Databases, RDBMS, SQL, Jupyter notebooks

IBM: Python Project for Data Science **October 26, 2024**

Data Science, Data Analysis, Python, Pandas, Jupyter Notebooks

IBM: Python for Data Science, AI & Development **October 18, 2024**

Pandas, NumPy

IBM: Data Science Methodology **October 8, 2024**

CISP-DM, Data Mining

IBM: Tools for Data Science **October 6, 2024**

GitHub, Jupyter Notebooks

IBM: What is Data Science? **October 4, 2024**

Big Data, Deep Learning

Additional Experience

Uber **February 2021 - Present**

Rideshare Driver

Ruth's Chris Steakhouse **January 2023 - December 2023**

Fine Dining Server

BestBuy Warehouse **May 2022 - December 2022**

Process of Shipment, Fraud Detection, Risk Mitigation

Travel Sabbatical **December 2021 – May 2022**

Germany, France, Bulgaria, North Macedonia, Italy, Greece, Portugal, Czechia, United Kingdom, Ireland, and Netherlands

Pama Ceia Golf & Country Club **June 2019 - June 2021**

Bartender

The Bridge Tender **August 2017 - May 2019**

Fine Dining Server