# Alexander Young

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## Professional Summary

Aspiring Data Analyst with expertise in data manipulation, financial modeling, and quantitative problem-solving, driven by a passion for transforming complex datasets into actionable insights. Proficient in Python, R, MATLAB, and SQL, with hands-on experience in predictive modeling, statistical analysis, and data visualization. Dedicated to helping businesses optimize decision-making and operational efficiency through data-driven strategies. Continuously advancing technical skills through certifications and self-learning, with a strong commitment to staying current in emerging data analysis techniques and tools.

## Relevant Professional Experience

### University of North Carolina at Wilmington

**Teaching Assistant** **January 2024 - July 2024**

- Designed and implemented data-driven teaching strategies, increasing student exam scores by 10% across three Engineering Calculus courses. Enhanced ability to identify trends and draw actionable insights, directly applicable to data analysis, reporting, and process optimization in business environments.
- Developed a mentorship program for over 100 students, improving comprehension and motivation through collaborative learning initiatives. Gained experience in presenting complex concepts clearly and fostering engagement, skills essential for communicating analytical findings to stakeholders.

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

**Researcher** **January 2024 - May 2024**

- Organized a team analyzing rogue wave phenomena using the Nonlinear Schrödinger Equation (NLSE) and Gerstner's parametric equations, achieving 15% greater accuracy in understanding wave behavior. Identified correlations between wave frequency and environmental factors, refining methodologies for analyzing dynamic systems.
- Applied Fast Fourier Transforms (FFT) and developed MATLAB models to simulate and analyze known wave solutions, increasing computational efficiency by 20%. Optimized data processing workflows and managed complex datasets, demonstrating proficiency in quantitative analysis and computational modeling
- Co-authored a scholarly article and presented research findings at a conference of 300+ attendees, showcasing strong communication skills in translating technical data into insights for broad audiences.

## Relevant Professional Experience

### MCM / ICM Math Modeling Competition hosted by COMAP

**Team Leader** **April 2024**

- Led a team in conducting statistical research and analysis on the effects of psychological momentum in sports, utilizing R to process and organize large real-world datasets. This project sharpened my data wrangling and variable selection skills, which are essential for creating impactful, data-driven models.
- Orchestrated the development of predictive algorithms in MATLAB, constructing a model focused on statistically significant factors from a dataset of over 500 variables to identify patterns linking sports momentum to outcomes. Leveraged historical data to enhance model performance by 20%, showcasing complex data processing skills.

## 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.

### Bachelor of Science, Chemical Engineering

**University of South Florida,** **Ongoing**

- Working towards a Bachelor of Science degree in Chemical Engineering and have 53 credit hours remaining before completion.

## Skills

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| **Data Analysis:** | - Statistical Analysis, Data Wrangling, Statistical Techniques |
| **Machine Learning:** | - Predictive Modeling, Classification, Regression, Clustering, SciPy, Scikit-Learn |
| **Data Visualization / Analytics:** | - Excel, R Markdown, Jupyter Notebooks, Data Visualization with Python |
| **Database Management:** | - SQL, MySQL, Cloud Databases, RDBMS |
| **Programming:** | - Python, R, MATLAB, Machine Learning Algorithms, HTML, JavaScript |
| **Version Control:** | - Git, GitHub |
| **Mathematical Software:** | - R Studio, Maple, MATLAB, Simulink |
| **Soft Skills:** | - Team Collaboration, Problem Solving, Analytical Thinking |
| **Data Management:** | - Big Data Technologies, Data Storytelling |
| **Languages:** | - English *(Native),* German *(Speaking, Reading, Writing)* |

## 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