Benjamin Nicholson

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Aspiring Quantitative Researcher
I possess a strong mathematical foundation with extensive applications of Data Science techniques in university curriculum and research projects. Notably, I presented year-long research 'Enhancing Technical Analysis with Data Science' at the University Research Conference and am currently working with Dr. Jared Burns to publish our findings. I am committed to advance my career by gaining hands-on experience through a Quantitative Research internship during the summer of 2025, before pursuing a Masters in Statistics this Fall.

Education

Seton Hill University Bachelor of Science in Data Science – Data & Modeling *Greensburg, PA, May 2025*

Cumulative GPA: 3.7 Department GPA: 3.6 Dean's List: Spring 2022, Spring 2024, Fall 2024
Honors: Academic Scholarship NCAA DII Men's Soccer Team Athletic Scholarship
Relevant Coursework: Probability & Statistics II, Algorithms Analysis, Mathematical Modeling, Graph Theory, Applied Statistics & Modeling, Linear Algebra, Calculus III

Work Experience

Data Analytics Marketing Intern for CMMB *September 2024-Current*
- Develop donor portfolio segmentation using clustering and statistical analysis for targeted marketing campaigns
- Optimize database structure and clean data to prepare for seamless integration with Power BI dashboards
- Calculate and analyze key metrics, including Customer Lifetime Value (CLV) and donor retention rates

Experience at University

Captain of Men's Soccer Team *Fall 2024*
- Collaborate with coaching staff to create a unified 60–man roster to compete in the PSAC
- Assist with the management of the team, while facilitating additional practices and workouts

Head Resident Assistant *Fall 2023-Current*
- Perform progress reviews of Resident Assistants
- Resource management for Residence department offices
- Prepare and distribute communications regarding scheduling and events

Statistics/Programming Tutor *Fall 2024-Current*
SMA 127 Statistics for Science Assist students applied understanding in scientific research areas:
- ANOVA and regression analysis in statistical software
- Hypothesis testing using t-tests, Chi-square tests

SMA 129 Statistics for Business Facilitate a business-orientated statistical understanding of:
- Exploratory Data Analysis (descriptive statistics and distributions of data)
- Data visualisation through dashboards to appeal to stakeholders

SCS 142 Programming II (Python, R, Matlab) Utilizing a mathematical and engineering approach for:
- Implementing popular libraries: Pandas, NumPy, Matplotlib, dplyr and ggplot2

Fundraiser Coordinator *Fall 2023 & Fall 2024*
Coordinate University wide fundraiser for breast cancer awareness in 2023 and 2024
- Project management experience in leading twelve members over a four-month period
- Achieved 2nd place in fundraising for the 2023 and 2024 academic years

Related Project Experience

Enhancing Technical Analysis with Data Science (Python) *June 2024 – Current*
- Evaluate success of Technical Analysis (TA) in purchasing sector ETFs during business cycles
- Optimize TA techniques based on underlying market dynamics such as volatility and moving averages
- Utilize supervised/unsupervised ML techniques for portfolio optimization

Maryland Automotive Industry Analysis & Forecasting (Python) *January 2024-Current*
- ARIMA/SARIMA/SARIMAX models integrating macroeconomic conditions
- Combining time series analysis with mathematical modeling to forecast sinusoidal relation in car sales over time

Time Series Sales Analytics and Forecasting (Python/R) *April 2024-May 2024*
- Evaluate performance of Box Jenkins, Holt Winter's and Regression models on variety of dataset.