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Aspiring Quantitative Research
Upon completing my Bachelor of Science in Data Science, I am looking for a quantitative finance internship in preparation for my graduate studies in applied mathematics starting Fall 2025. I have experience in self-led research in finance and economics, which have been presented at University Research Conferences.

Education

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

Cumulative GPA: 3.7/4.0 Department GPA: 3.6/4.0 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 (calculus-based probability), Algorithms Analysis, Mathematical Modelling, Graph Theory, Applied Statistics & Modelling, Linear Algebra, Calculus III, Numerical Analysis

Work Experience

Data Analytics Marketing Intern for CMMB *September 2024-Present*
- 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 analyse key metrics, including Customer Lifetime Value (CLV) and donor retention rates

Experience at University

Captain of Men's Soccer Team *Spring 2024-Fall 2024*
- Assist with the management of the team, while facilitating additional practices and workouts
- Best team performance since the inception of the program

Head Resident Assistant *Fall 2023-Present*
- Perform progress reviews of Resident Assistants
- Resource management for Residence department offices

Fundraising Coordinator *Fall 2023 & Fall 2024*
- Project management experience in leading twelve members over a four-month period
- Coordinated University wide fundraiser for breast cancer awareness in 2023 and 2024 raising over $1500

Statistics/Programming/Data Analytics Tutor *Fall 2024-Present*
Statistics: Introduced topics in probability theory, regression analysis, hypothesis testing with a scientific or business approach to using statistics to solve problems.

Programming (SCS 142): Instructed Python, R, and MATLAB programming languages in project based assessments with focus on data science applications; implemented Pandas, NumPy, Matplotlib, dplyr, and ggplot2

Data Analytics (DT 100): Introduced descriptive/inferential statistics, data visualization, and analysis using Excel

Related Project Experience (See GitHub)

Enhancing Technical Analysis with Data Science (Python) *June 2024–Present*
- Evaluate success of Technical Analysis (TA) in purchasing sector ETFs during business cycles
- Optimize TA techniques by leveraging hyperparameter tuning showing 2% improvements over 90 days
- Developed a hybrid RSI-Bollinger Bands strategy, outperforming Buy and Hold Strategy by 10% over 90 days

EY Data Challenge: Cooling Urban Heat Islands (Python) *January 2025-Present*
- Building a machine learning algorithm to predict urban heat island temperatures
- Adopt Microsoft Planetary Computer and other Earth Science APIs in harnessing satellite imagery

Maryland Automotive Industry Analysis & Forecasting (Python) *January 2024-May 2024*
- Seasonal decomposition of time series data to use as a basis for mathematical modeling in forecasting sales
- ARIMA/SARIMA/SARIMAX models integrating macroeconomic conditions
- Identified underlying sinusoidal pattern in car sales as a result of changing macroeconomic conditions

Assessing the Predictability of Life Expectancy (Excel/Python) *November 2024- December 2024*
- Using WHO socioeconomic data to predict the life expectancy of individual countries in 2015
- Parametric and Non-Parametric statistical tests: ANOVA, Mann-Whitney U Test
- Multiple linear regression with 0.87 R^2 accuracy predicting life expectancy

Skills

Languages/Packages: Python (Scikit-Learn, Pandas, YFinance), MySQL, R, MATLAB, Excel
Numerical Methods: Numerical Linear Algebra, Differential Equations, Stochastic Process (Monte Carlo Simulations)
Advanced Tools: Gradient Descent, Reinforcement Learning, Neural Networks