Matthew R. Landry

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Education

Dartmouth College, Hanover, NH **June 2024; GPA 3.7/4.0**
Bachelor of Arts, Major in Mathematical Data Science; Minor in Computer Science
Relevant Coursework: *Probability and Statistical Inference, Machine Learning and Statistical Data Analysis, Discrete Mathematics, Problem Solving via Object Oriented Programming, Data Visualization, Multivariable Calculus, Linear Algebra*
Activities: Zeta Psi Rush Chairman, Zeta Psi Head Social Chairman, Zeta Psi Risk Manager, Aquinas House, Rock Climbing

Berlin High School, Berlin, NH **June 2020; Weighted GPA 106.19/100.00**
Honors/Awards: Valedictorian, NH State Scholar (STEM), High Honors, NH Basketball Coach's Organization All Academic Team, NHIAA and NHADA Scholar Athlete Award, American Mathematics Competition (First Place in School)
Activities: Senior Class President, National Honor Society Vice President, VEX Robotics Team Leader, Cross Country Captain, Basketball Captain, Tennis, Track and Field, Band

Recent Work Experience

Point72, Stamford, CT **June 2023-Aug 2023**
Derivatives Trade Support Intern

- Supported the firm's macro trading desk by aiding in reconciling positions and resolving trade breaks
- Took initiative to automate various daily manual processes using Pandas, NumPy, and other related libraries in Python
- Worked on multiple daily tasks associated with the trade cycle of numerous derivative products

Mac Murchadha, Remote **Mar 2022-June 2022**
Financial Research Intern

- Self-guided the construction of an RIA Outlook tracker that examined market strategies and positioning of numerous firms
- Maintained and distributed a job posting list primarily focusing on employment in the alternative investment space
- Attended meetings with investors and clients and kept records of investment plans

Projects

Mathematics Department, Senior Culminating Experience, Dartmouth College **Nov 2022**
Non-Gaussian Bayesian Update in High-Dimensional Space for Stock Prediction

- Constructed a model in Python that predicts stock prices based on past-price statistics and correlations to other stock prices
- Developed a modified version of Kalman Filtering in Python to act as a model refiner
- Additionally, added a unique form of Bayes' Theorem to the model to further enhance accuracy and prediction power

Mathematics Department, Topics in Applied Mathematics, Dartmouth College **May 2023**
Community Detection from Betweenness Centrality based on Random Walks

- Examined the paper "A Measure of Betweenness Centrality Based on Random Walks" by M.E.J. Newman to construct a betweenness centrality calculation function based on the concept of random walks
- Using this function, developed and implemented a new community detection algorithm using NumPy, NetworkX, and other related packages within Python
- Constructed a detailed report outlining the overall algorithm, development process, and complications faced

Economics Department, Econometrics, Dartmouth College **Nov 2022**
The Effects of a Minimum Wage Increase

- Used results to construct a report that examined the statistical significance of the regressions' "difference-in-difference" variables to reach to a valid conclusion of how minimum wage increases affect employment, income, and rent
- Used coding through Stata, produced balance tests, a table of means, regressions, and other relevant graphs to find results

Volunteering Activities

Knights of Columbus, Berlin, NH **Aug 2020-Present**
Fourth Degree Knight

- Fundraised for the Special Olympics by participating in a roadside toll
- Served breakfast to low-income families in a free community breakfast

Skills & Interests

Programming Experience: [Intermediate] Python, R, Java, Stata, C, C# [Beginner] HTML, Javascript, SQL, Bash
Technical Skills: Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Computer Aided Design, Power Tools
General Skills: Leadership, Problem Solving, Data Analyzation and Manipulation, Timeline Management, Collaboration
Interests: Running, Basketball, Tennis, Pickleball, Climbing, Sailing, Airsofting, Board Games, Avid Disney Parks Lover