Jason Lott

Computer Science and Mathematics
University of Maryland, College Park

(301) 385-6793
jason.lott03@gmail.com
GitHub Profile
LinkedIn Profile
Personal Portfolio

Education

University of Maryland, College Park *2025*
B.S. in Computer Science and Mathematics GPA: 3.91

Montgomery Blair High School *2021*
High School Diploma Weighted GPA: 4.4

Experience

University of Maryland Mathematics Department *May 2024 - Present*
Research Assistant under Dr. Yanir Rubinstein College Park, MD

- Assisted in research using Prime Color Optics cameras and Theia3D software to capture high-definition videos of basketball players taking shots and accurately identify and track the location and rotation of each limb of the shooters.
- Processed and analyzed data on shooter limb positions, leveraging strong skills in Python and key libraries including Pandas, NumPy, Matplotlib, and Plotly.
- Applied advanced concepts in linear algebra and geometry to interpret data and derive meaningful insights.
- Contributed to the development of visualizations and analytical reports to support research findings.

University of Maryland Baseball *September 2022 - Present*
Student Manager: Data, Coding College Park, MD

- Use data collected by the team to create insights to help the team succeed.
- Compiled diverse data sets to create scouting reports before every series.
- Used Python and R to create visualizations and models to assess player performance.

Highmark Health *May 2023 - January 2024*
Application Developer Intern Pittsburgh, PA

- Worked with business analysts to gather requirements and design solutions.
- Developed and implemented Apex classes and triggers in Salesforce CRM.
- Created and managed custom objects and fields.

Personal Projects

Time Series Analysis of Box Scores *May 2024*
Final project for MATH498R "Mathematics of Sports Performance Analytics" (completed with classmate Arthur Lin)

- Tools & technologies used: Python, Pandas, Numpy, Scikit-Learn, NBA API, Latex
- Tracked personal and team statistics over time during NBA games and seasons and explored the formulas of many advanced statistics. Utilizing the NBA's public API, we tracked how a player or team's traditional and advanced stats accumulated throughout the course of a game or season. Finally, we used regression techniques to approximate the formulas for true shooting percentage, which has a known formula, and Player Production Average (PPA), which has an unknown formula. All code, Latex, and the final paper can be found on Github.

Pitch Movement Synergy *April 2023*
Project completed for the University of Maryland Baseball team (completed as student manager)

- Tools & technologies used: Python, Jupyter Notebook, Pandas, Numpy, Matplotlib
- Using pitch data collected by Yakkertech Systems, I created a visualization to assess pitchers' performance through pitch movement synergy. All code and output graphs can be found on Github.

Technical Skills and Interests

Languages: Python, R, SQL, Java, Ruby, OCaml, Rust, C, Swift, Apex
Developer Tools: Salesforce
Frameworks: Python - Pandas, Numpy, Scikit-Learn
Coursework (completed with A±): Introduction to Machine Learning, Introduction to Data Science, Mathematics of Sports Performance Analytics, Application of R for Data Science, Databases For All (SQL), Applications of Linear Algebra, Advanced Calculus I, Theory and Methods of Statistics
Areas of Interest: Data science, sports analytics, performance evaluation

Positions of Responsibility

Vice-President (D2 Co-Coach), University of Maryland Club Baseball *July 2023 - Present*

Achievements

Dean's List Semester GPA of 3.5 or above *Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024*

AP Scholar with Distinction Awarded for scoring a 3 or higher on 5 AP exams *Spring 2021*