

# Luke Hamm

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## Education

### Wheaton College

Graduated May 2025

- *B.S. in Applied Mathematics (Concentration in Statistics)*
- Relevant Courses: Calculus I–IV, Linear Algebra, Differential Equations, Probability Theory, Probability and Statistical Analysis, Visualization for Data Science, Analysis, Applied Machine Learning, Management Information Systems
- NCAA Division III Baseball Player, Team Captain

## Work Experience and Projects

### P3Works Project Analyst

Aug 2025 - Present

- Analyst at a public-finance consulting firm supporting Texas municipalities on developer-backed infrastructure financings (PIFs/TIRZs) and reimbursement programs.
- Built and reviewed financial models to evaluate deal feasibility, tax/assessment impacts, and key risks; partnered with financial advisors to develop debt-service schedules and bond-payment projections.
- Coordinated with engineers, attorneys, and developers to allocate eligible costs, maintain compliance with statutory and governing documents, and support reimbursement/assessment structuring.

### Data Resources Ltd. Baseball Video Analyst

2023 - 2024

- Collected and analyzed game data for Major League Baseball organizations, delivering insights for player assessment using both qualitative and quantitative methods.

### Optimal Pitch Mechanics for Maximising Velocity (Capstone Project)

May 2025

- Built Random-Forest and MARS regression models on 30+ kinematic variables from Driveline's OpenBiomechanics database; best model (MARS) captured 91% of fastball-velocity variance ( $R^2 = 0.91$ ).
- Partial-dependence analysis pinpointed shoulder and elbow external rotation as the most influential mechanics; a 5–10° adjustment predicts ~0.6–0.9 mph gains.
- Computed optimal ranges for five high-leverage metrics (e.g., elbow energy transfer, torso rotation) to deliver actionable, coach-friendly training targets.

### Cincinnati Reds Hackathon Project

February 2024

- Collaborative advanced data analysis working with large data sets of MLB statistics. Used predictive modeling to estimate which pitchers would be better suited in a new role.

### Glove Relacing Business

2023 - 2024

- Founder of a business offering baseball glove relacing and conditioning services via Facebook Marketplace.

## Skills

- Expert Excel Proficiency
- Programming Languages: R, Python, VBA
- Experience with SQL, Tableau, C++, LaTeX, Access, and Power BI
- Proficient at leveraging generative-AI tools for data scraping, rapid code debugging in R/Python, and interpreting model outputs to identify statistically significant features. Extensive experience with Endex, Replit, and ChatGPT Pro with projects. Workplace experience using Harvey AI and Notion.