

# Carson Slater

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<https://carsonslater.github.io/portfolio2022/>  
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<b>SUMMARY</b>	Motivated undergraduate student seeking to gain professional work experience with quantitative and qualitative analytical methods. Strongly interested in studying machine learning, Bayesian methods or causal inference. Seeking to enter a Statistics graduate program in the fall of 2023. Self-disciplined former NCAA athlete. Quick learner who seeks to contribute to any research institution for whom he works.	
<b>EDUCATION</b>	<b>B.S. Applied Mathematics with Statistics</b> <b>B.A. Economics</b> <i>Wheaton College, Wheaton, IL</i> <i>Edman Presidential Scholarship</i>	May 2023 3.41/4.00 GPA
<b>RELEVANT COURSEWORK</b>	Mentored Research Seminar, Numerical Analysis, Linear Algebra for Data Analysis, Experiences in Data Analysis, Mathematical Statistics, Machine Learning, Probability Theory, Real Analysis, Intensive Introduction to Computer Science ( <i>Harvard</i> ), Economics of Labor and Poverty.	
<b>TECHNOLOGY SKILLS</b>	<i>Software Languages:</i> R/RStudio, SAS, Python, C, SQL, L <sup>A</sup> T <sub>E</sub> X, JavaScript, CSS, HTML. <i>Languages:</i> Intermediate Koine Greek and Spanish ( <i>Classroom Study</i> ).	
<b>EXPERIENCE</b>	<i>Applied Machine Learning Teaching Assistant</i> Wheaton College Department of Mathematics and Computer Science	December 2022-Present
	<ul style="list-style-type: none"><li>Hosted help sessions for students to come with questions for their Python code or ML concepts.</li><li>Graded Python Jupyter notebooks as homework assignments from students.</li></ul>	
	<i>Probability Theory Teaching Assistant</i> Wheaton College Department of Mathematics and Computer Science	August 2022-December 2022
	<ul style="list-style-type: none"><li>Hosted help sessions for students to come with questions on the homework or class content.</li><li>Was available for email correspondence with homework questions outside of help session hours.</li></ul>	
	<i>Participant</i> Duke/North Carolina State Summer Institute for Biostatistics	June 2022-July 2022
	<ul style="list-style-type: none"><li>Participated in several classroom discussions to engage standard biostatistical methods and areas of study at Duke Clinical Research Institute and North Carolina State University.</li><li>Culminated in a Hackathon investigating and modeling myocardial infarction and associated complications.</li></ul>	

*Data Analyst* June 2020-July 2020  
Wheaton College Center for Vocation and Career

- Tidied and analyzed data from Wheaton College's Class of 2020 as a project for Wheaton College's Center for Vocation and Career.
- Utilized Microsoft Excel and survey data to determine the post-graduation outcomes by state, major, and gender.

## PROJECTS

*Forecasting FMCG Demand Using Generalized Additive Models* November 2022

- Built time-series forecasting models to predict quantity-demanded for fast-moving consumer goods in Indonesia.
- Presented poster at University of Illinois – Chicago's 2022 Undergraduate Mathematics Symposium and Wheaton College's 2022 Homecoming STEM Poster Session.

*Understanding and Modeling Predictors to Earned Run Average in Modern Major League Baseball* May 2022

- Conducted variable selection using predictors from the Lahman baseball database to model Earned Run Average using regression analysis. Used the same predictors to build a single-layer neural network and a radial support vector regression model in R/RStudio.

*Does the Universal DH Have a Significant Impact on Offensive Productivity?* May 2022

- Utilized a difference-in-differences approach to compare the 2019-2021 MLB season where 2020 uniquely featured a universal designated hitter (DH). Found through one-way ANOVA the universal DH had an insignificant impact on offensive productivity.

*Hill Cipher Cryptography with Matrices* May 2021

- Utilized a Hill Cipher to encode and decode messages. Wrote a brute force Python Program to decode  $2 \times n$  matrices.

## EXTRA-CURRICULAR VOLUNTEER

*ESL Instructor* August 2022

Josiah Venture Czech Republic

- Taught conversational English classes, functional fitness and computer programming concepts in Scratch to Czech teens at a summer English camp near a small city on the border of Poland and the Czech Republic, called Český Těšín.

*Varsity Baseball Player* August 2019 - May 2022

Wheaton College Athletics, NCAA

- Practiced baseball six days a week for multiple hours and played over forty-games during the spring semester.

*Sophomore Class Council Administrator* August 2020 - May 2021

Wheaton College Student Government

- Wrote agendas for meetings and managed large-scale projects as an administrator. Managed the class budget and delegated responsibilities for class assemblies. Created a survey to gauge on-campus mental health during the fall 2020 semester.