

Lily Harper Holmes

lilyharperholmes@gmail.com | github.com/lily-harper | LinkedIn: lilyharperholmes

Education

University of Colorado Boulder

M.S. in Data Science

College of Engineering & Applied Science

Relevant Coursework: Statistical Methods I & II, Data Structures & Algorithms, Data Mining, Cybersecurity

Boulder, CO

Expected May 2027

GPA: 3.94/4.00

University of Nebraska–Lincoln

B.A. in Economics and History

College of Arts and Sciences

Relevant Coursework: Introductory Econometrics, Economic Data Analysis, Applied Game Theory, Calculus I & II

Lincoln, NE

May 2024

GPA: 3.77/4.00

Skills

Programming & Data: Python, R, SQL, pandas, scikit-learn, NumPy, matplotlib, seaborn, tidyverse, ggplot2

Analysis & Modeling: Regression, classification, time series analysis, exploratory data analysis, model evaluation

Tools: Jupyter, Excel, Tableau, Power BI, IBM SPSS, Git/GitHub, Office365

Communication: Technical writing, data visualization, stakeholder-facing reports, presentations

Projects

Denver Motor Vehicle Injury Risk Classifier

Python, pandas, scikit-learn

- Built a machine learning pipeline to predict whether Denver traffic crashes resulted in serious injury or fatality using public crash records and road feature data.
- Engineered time, road, vehicle, driver action, and speed-limit features to model injury risk in a highly imbalanced classification setting.
- Evaluated logistic regression, decision tree, and baseline models using precision, recall, F1, ROC-AUC, and PR-AUC.

Call Me Maybe: Nudges and Student Decision-Making

R, regression, ggplot2

- Cleaned and analyzed novel administrative data from the University of Nebraska–Lincoln to evaluate whether behavioral nudges influenced student decisions.
- Used regression analysis and data visualization in R to identify patterns and communicate findings.
- Presented results through a written thesis and oral defense with data-driven recommendations.

Experience

Polco

Boulder, CO

Data Specialist (Contract)

October 2025 – December 2025

- Researched, categorized, and validated data in Excel to support analysis for Boulder's Transportation Master Plan.
- Compiled local business datasets, improving completeness, consistency, and usability for stakeholder review.
- Performed data entry and quality checks across structured datasets used in transportation planning workflows.

Methodology and Evaluation Research Core Facility

Lincoln, NE

Undergraduate Research Assistant

June 2023 – September 2023

- Analyzed survey data and created visualizations to support program evaluation reports for internal and external stakeholders.
- Generated descriptive statistics and exploratory findings using IBM SPSS and Excel.
- Helped translate raw survey responses into summarized insights for research and reporting teams.

College of Business Teaching and Learning Center

Lincoln, NE

Teaching Assistant

January 2023 – December 2023

- Supported instruction for four large introductory economics courses and one upper-level economics course through grading, student communication, and exam proctoring.
- Led review sessions and one-on-one tutoring appointments to help students understand economics, statistics, and course problem-solving methods.
- Communicated technical and quantitative concepts to students with varied levels of preparation.

Extracurricular

Data Science Student Association

Boulder, CO

Colorado Data Science Team

Boulder, CO