RILEY KOUNS

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EDUCATION

University of Chicago Chicago, IL
M.S. Computational Analysis and Public Policy June 2026 (Expected)
Coursework: Data Visualization, Advanced Machine Learning, Big Data App Architecture

University of Idaho Moscow, ID
B.S. Mathematics (Applied Quantitative Modeling) May 2023
B.S. Statistics
Honors: *Summa cum laude,* Outstanding Undergraduate Research Nominee, Outstanding Senior
Coursework: Foundations of Machine Learning, R Programming, Mathematical Statistics

PROFESSIONAL EXPERIENCE

Great Lakes and St. Lawrence Governors and Premiers (GSGP), MobilizeGreen Chicago, IL
Geospatial Analysis Intern June 2025 – August 2025

- Computed regional maritime's share of total greenhouse gas emissions from over 10,000 geospatial data points using QGIS and Python to inform GSGP's emissions targets
- Presented results to regional transportation department/ministry staff using an Experience Builder regional emissions dashboard, guiding GSGP's maritime committee on upcoming organizational five-year plan
- Researched state, provincial, and federal greenhouse gas inventories and GSGP's strategy documents to prepare emissions estimates and to contextualize findings in a 20-page report with technical appendices

PROJECT EXPERIENCE

University of Chicago Chicago, IL
Grocery Product Nutrition Visualization (*"tallying-joules"*) June 2025 - Present

- Built a Streamlit dashboard with Altair charts to visualize nutrition and price data, highlighting data quality issues and the best value food items for particular nutrients
- Queried data from a grocery store's GraphQL API, wrangling messy hierarchical data into relational structure using the Polars Python library

Iron Ore Shipping Interactive Visualization November 2025 – December 2025

- Wrote a scrollytelling-style article as a primer to Great Lakes iron ore shipping using Scrollama.js
- Animated charts and maps using D3 and MapLibre to present ore tonnages by port and a typical lake freighter shipping route

University of Idaho Moscow, ID
Ecological Dynamic Modeling Research February 2022 – May 2023

- Utilized NumPy, pandas, and Pyplot to simulate and visualize the distribution of thousands of dynamic system solutions across 25 parameter configurations, producing figures motivating further research for advisor in spectral analysis and random matrix theory
- Organized Python code notebook appendix with commentary for manuscript, providing reproducibility and readability for technical and less technical audiences
- Presented poster and Manim-animated video at University of Idaho College of Science Student Research Expo, interpreting graphs and their real-world context among 36 participants

SKILLS

Programming Languages: **Python** (NumPy, pandas, Streamlit, Altair), **JS** (D3, Scrollama), **R** (tidyverse), **SQL**
Data Analysis: ML (tree-based models, neural nets), Database architecture (text embedding)