

REBECCA RISCH

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Portfolio: <https://rrisch816.github.io/index.html>

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EDUCATION

Dartmouth College, Hanover, NH **June 2025**

Bachelor of Arts, Major in Mathematical Data Sciences, Minor in Environmental Earth Sciences **GPA 3.73/4.0**

Relevant Coursework: Machine Learning & Statistical Data Analysis, Advanced Data Visualization, Probability & Statistical Inference, Intro to Programming & Computation, Sports Analytics, Linear Algebra, Environmental Applications of GIS.

Activities: Sports Analytics Club, Club Ski Racing Team, First Year Outdoor Trip Leader, Hillel Chair for Interfaith Council.

Earth Sciences Department Off Campus Program, Canadian Rockies and the American West **Fall 2023**

Earth Sciences fieldwork program. Covered geological mapping, experimental methods, and environmental monitoring.

The Emery/Weiner School, Houston, TX

June 2021

Honors/Awards: Winston Churchill Award for Perseverance

GPA 96/100, ACT: 35

PROFESSIONAL EXPERIENCE

Dartmouth College Baseball Team, Hanover, NH **February 2024 – Present**

Data Scientist

- Create player performance charts and deliver actionable insights to the coaching staff by analyzing TrackMan and Rapsodo Baseball trajectory data and writing scripts with Python and R.
- Built interactive, customizable dashboard using D3.js, plotting pitches in the strike zone and displaying player metrics. Version 1 video demo linked here: <https://www.youtube.com/watch?v=EEddEZcI-Y4>, product improvements in progress
- Attend scrimmages and home games, operating Trackman Baseball and collecting video. Consult with coaches on best data collection practices and how to utilize analytics to facilitate more strategic and actionable coaching.

United States Geological Survey – New England Water Science Center Augusta, ME

July 2024 – August 2024

Data Analytics and Visualization Intern

- Modeled potential flood damage in the Charles River Basin using Python. Maintained federal data standards.
- Completed map editing in ArcGIS Pro of the Housatonic River basin flood hazard areas, floodways, cross sections, hydraulic structures, and other critical geospatial aspects on the FEMA RiskMap floodplain mapping project.
- Assisted FEMA fieldwork team with surveying high-water marks from floods in Western Maine.

Flogistix, Oklahoma City, OK

March 2023 – December 2023

Data Science Intern

- Executed the Exploration and Initial Analysis phases of Predictive Maintenance Project. Developed Machine Learning models to predict and preemptively resolve breakdowns on oil compressor units with vapor recovery tanks. Objective was to increase equipment uptime and reduce Flogistix's labor costs, clients' methane emissions, and lost revenue.
- Wrote Pyspark and SQL scripts based on maintenance work order data to find average part lifespans, thereby identifying currently operating over-aged parts, lifespan trends between operating areas, and most frequently replaced parts.
- Presented findings to executive leadership and engineering teams with ReDash and Databricks dashboards.
- Wrote and pushed to production a PySpark script and Directed Acyclic Graph (DAG).

Dartmouth College Earth Sciences Department, Hanover, NH

June 2022 – March 2023

Research Assistant- Neukom Scholar

- Sourced satellite imagery of hillslopes in Arctic areas to map out visible water tracks as training data for AI to accelerate research in understanding how thawing permafrost forms water tracks, thereby affecting water runoff levels and chemistry.

PROJECTS

Major Thesis: *New Estimates of Martian Erosion Rates from Crater Obliteration Statistics*

September 2024 – June 2025

Dartmouth Baseball Dashboard (v1)

May 2024 – November 2024

Dartmouth Sports Analytics Club: *Rile Them Up: Do MLB Managerial Ejections Affect Game Score?*

December 2024

- Quantitative analysis of the impact of MLB managerial ejections on game score with Python and Mann-Whitney U Tests.

Personal Portfolio:

December 2024 – January 2025

- Building portfolio from scratch using HTML and CSS, hosted with GitHub pages: <https://rrisch816.github.io/index.html>

SKILLS & INTERESTS

Technical: Python, SQL, R, D3.js, PySpark, ArcGIS Pro, JMP, Apache Airflow, LaTeX, Adobe PhotoShop, Adobe InDesign

Professional Development: MLB's Take the Field Participant 2024

Additional Interests: Spanish (Intermediate), Theater and Television Production, Snow Sports, Sailing, Cooking, Paddle Sports