Cassidy All

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720-526-8390

Skilled interdisciplinary researcher/data scientist with experience building scalable machine learning systems & high-performance development pipelines, dataset creation/curation, and statistical modeling.

Education

University of Colorado, Boulder | GPA 3.61 | Expected: May 2026

BS, Applied Mathematics | **BS, Statistics** | **BS, Information Science** | Minor, English

Relevant Courses: Recommender Systems, Fair Machine Learning, Information Exploration, PDEs, Markov Processes & Monte Carlo Simulation, Random Matrix Theory, Applied Probability, Mathematical Statistics

Languages: Python, R, SQL, MATLAB, C++, JavaScript, React

Software: AWS, S3, Azure, Snowflake, Tableau, PowerBI, Excel

Packages: TensorFlow, Keras, PyTorch, numba, jit, pandas, seaborn, matplotlib, sklearn, causalml, gensim, top2vec, numpy, tidyverse, selenium, and more...

Awards: Computing Corporate Affiliates Program — Google Corporate Scholar, Spring 2024

Experience

Research Assistant | Recommender Systems
May 2023 — Present

That Recommender Systems Lab | University of Colorado, Boulder | Boulder, CO

- Designed key components of a novel experimental machine learning recommendation system in Python.
- Generated high-performance evaluation and hyperparameter tuning pipelines that reduced compute time from hours to seconds—with an emphasis on carefully-tailored metrics.
- Authored one conference paper at **RecSys 2024**, two workshop papers at **RecSys 2023** and **RecSys 2024**, and a journal article in **ACM Transactions on Recommender Systems**.

Research Assistant | Natural Language Processing (NLP)
August 2023 — May 2024

Studio Lab | University of Colorado, Boulder | Boulder, CO

- Implemented cutting-edge transformer, NLP, and retrieval-augmented generation (RAG) methods on a unique historical corpus of Early Modern English plays.
- Researched word-sense disambiguation problems, knowledge editing/pre-training transformers, and zero-shot classification with sparse textual data.

Data Science Fellow | Dataset Creation & Causal Inference
June 2023 — September 2023

Campaign Zero | New York, NY

- Built scalable data pipelines, ingested and normalized data, and developed automated auditing.
- Utilized a wide variety of statistical estimators for causal inference and prediction with respect to an impact analysis of municipal housing policy—collected, cleaned, and modeled data from across the country.
- Created a novel record linkage model, **improved key metrics** (precision, L2 norm, etc.) **by >50%.**

Research Assistant | Spatial Data, Archival Research
September 2022 — August 2023

Undergraduate Research | University of Colorado, Boulder | Boulder, CO

- Conducted archival research in local, state, and federal physical and digital repositories.
- Explored land administration in the early American West through original research, mapping in ArcGIS., and interdisciplinary collaboration. Publication forthcoming.

Community Involvement

Present: CU Boulder National Residence Hall Honorary, CU Boulder Leeds Consulting Group

Past: National Speech & Debate Association Wording Committee, Mock Trial, Ethics Bowl