

# Dani Roytburg

droytbur@andrew.cmu.edu  
djroytburg.github.io

November 28, 2025

**Summary** Master’s student in the Machine Learning Department at Carnegie Mellon University focused on reliable and interpretable AI, multi-agent training paradigms, and activation-based model analysis.

<b>Education</b>	M.S.	<b>Carnegie Mellon University, School of Computer Science</b> Machine Learning	2026
	B.S.	<b>Emory University, College of Arts and Science</b> Computer Science; Quantitative and Social Sciences	2025

<b>Positions</b>	<b>Carnegie Mellon University</b> Pittsburgh, PA	Research Assistant, Language Technologies Institute September 2025-present
	Develop multi-agent adversarial reinforcement learning environments to improve legibility of reasoning traces.	

<b>Martian Research</b> Remote	Research Fellow May 2025-present
-----------------------------------	-------------------------------------

Engineer activation profiles of language model evaluators to suppress self-preferential bias; winner of a mechanistic interpretability hackathon.

<b>Emory University</b> Atlanta, GA	Research Assistant, Digital Humanities Lab November 2021-May 2025
--	--

Designed and trained large-scale graph-text models; evaluated adversarial robustness of LLMs; built historical correspondence networks and dashboards.

<b>ZS Associates</b> Evanston, IL	Internship - Business Technology Solutions June 2024-August 2024
--------------------------------------	---

Automated ETL pipelines and implemented synthetic-data imputation for compromised client data.

<b>Cloverpop</b> Chicago, IL	Intern — Machine Learning January 2024-May 2024
---------------------------------	--

Deployed decision-management systems and structured-prediction models on meeting tran-

scripts.

**McCormick and Company**  
Hunt Valley, MD

Intern — Global Marketing and Sales Data Science  
June 2023-August 2023

Built Amazon sales data visualizations and automated analytics with GCP BigQuery and BERT-based embedding search.

**Northeastern University**  
Boston, MA

Research Assistant, Mediacloud Lab  
June 2022-October 2022

Extended NER to long-tail ethnics cuisines using Bon Appetit data.

## Publications

### Conference Papers

Dani Roytburg, Matthew Bozoukov, Hongyu Fu, Matthew Nguyen, Jou Barzdukas, and Narmeen Fatimah Oozeer. Breaking the mirror: Examining self-preference in llm evaluators through activation-based representations. In *NeurIPS 2025 Workshop on Evaluating the Evolving LLM Lifecycle: Benchmarks, Emergent Abilities, and Scaling*, 2025. URL: <https://arxiv.org/abs/2509.03647>

Dani Roytburg, Deborah Olorunisola, Sandeep Soni, and Lauren Klein. Words and action: Modeling linguistic leadership in # blacklivesmatter communities. In *Proceedings of the International AAAI Conference on Web and Social Media*, volume 19, pages 1690-1703, 2025. URL: <https://ojs.aaai.org/index.php/ICWSM/article/view/35895>

### Thesis

Daniel Roytburg. Generative argument mining: Pretrained language models are argumentative text parsers. Undergraduate thesis, Emory University, 2025. URL: <https://etd.library.emory.edu/concern/etds/5t34sm11w?locale=en>

## Recognition

### Awards

Emory University Dean's List, 2022, 2024-2025

Winner, Martian Research Mechanistic Interpretability Hackathon, 2025

## Skills

Python Java R JavaScript Typescript SQL PyTorch JAX HuggingFace Transformers scikit-learn spaCy networkx D3.js React.js GCP Docker MySQL