Reva Hirave

Woodbridge, VA   ✉ rhirave@princeton.edu   in reva-hirave   ⚑ US Citizen

Education

Princeton University   *Fall 2025 – Spring 2027*
Fully-funded MSE Computer Science
    Relevant Coursework: Machine Learning, Applied Social Statistics, Fairness in Machine Learning
    Academic Affiliations: Center for Information Technology Policy, Humans and Machine Lab
    Teaching Assistantships: Computer Science: An Interdisciplinary Approach (Fall 2025, Spring 2026)

George Mason University   *Fall 2021 – Spring 2025*
BSc in Applied Computer Science: Software Engineering
    GPA: 3.82/4.0
    Minors: Computational and Data Sciences, Web Design
    Academic Programs: Honors College, Accelerated MS CS
    Awards and Honors: Dean's List (x8), Undergraduate Research Scholars Program Grant (x3), Break Through Tech
    AI Fellowship, Outstanding BAM Student Award, Goldwater Nominee, Deltek Software Engineering Scholarship

Technical Skills

    Methods: LLM- Based Concept Induction and Clustering (LLooM), Topic Modeling (LDA), Toxicity Detection
    (Perspective), Lexical Semantics (WordNet), Sentiment Analysis (BERT, VADER)
    Data Acquisition: API Integration (Reddit, NYT, Google Translate), Request Interception, Web Scraping
    AI/ML & NLP: PyTorch, HuggingFace, Scikit-learn, Keras, Stanza, NLTK
    Languages & Data: Python (NumPy, Pandas, Matplotlib), R (tidyverse, ggplot2), SQL, Java, C

Research Experience

Graduate Researcher   *Princeton, NJ*
Humans and Machines Lab, Princeton University   *Aug 2025 – Present*
- **TikTok Data Donation for Well-Being Research**
  - Built a secure, cross-platform mobile data donation application (with Flutter, FastAPI and Google Cloud Platform services) for collecting self-reported TikTok usage data to support research on digital well-being.

Data Science Intern   *Baltimore, MD, Remote*
Center for Speech and Language Processing, Johns Hopkins University   *Jun 2024 - Jul 2025*
- **AI-Curated Democratic Discourse**
  - Sole data engineer for Stacky, a full-stack social media platform designed to reduce political polarization, and collaborated with a multidisciplinary research team spanning sociology, software engineering, HCI, and ML/NLP.
  - Built and optimized an asynchronous, large-scale, data pipeline to periodically harvest and simulate cross-platform political discussions from Fox News, Reddit, and The New York Times.

NLP Research Assistant   *Fairfax, VA*
Natural Language Processing Group, George Mason University   *Aug 2023 - May 2025*
- **Comments to Communities: Modeling Online News Discourse**
  - Conducted an independent, funded study evaluating computational approaches to measuring polarization.
  - Analyzed large-scale comment datasets using network visualizations and Perspective API toxicity scores as proxies for conversational health.
- **Evaluating Linguistic Relativity Through the Grammatical Gender of Inanimate Nouns and their Co-occurring Adjectives**
  - Extracted inanimate noun-adjective pairs from a multilingual spoken corpus using Stanza, WordNet, and Google Translate API, then calculated normalized mutual information to assess cross-linguistic patterns.

NLP Research Intern   *Fairfax, VA*
KaDSci, LLC   *Aug 2024 - Dec 2024*
- **Fine-grained Reddit Discourse Modeling and Evaluation**
  - Developed and evaluated fine grained combined topic modeling and sentiment analysis techniques to evaluate public discourse on NASA's Project Artemis using LLM-assisted concept induction, LDA, and VADER