Varun Mulchandani

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Location: Raleigh, NC, USA ; Citizenship: U.S. Citizen

Education

North Carolina State University — Raleigh, NC, USA
PhD in Computer Science, Advisor: Dr. Jung-Eun Kim — *Aug 2024 -*

North Carolina State University — Raleigh, NC, USA
Master of Science in Computer Science, Thesis Advisor: Dr. Jung-Eun Kim — *Aug 2022 – Jul 2024*

- Full Tuition Waiver (GSSP Scholar), GPA: 4.0/4.0

Vellore Institute of Technology — Vellore, TN, India
B.Tech in Computer Science and Engineering — *July 2018 – May 2022*

- GPA: 9.34/10

Publications

Varun Mulchandani and Jung-Eun Kim. Severing Spurious Correlations with Data Pruning. In International Conference on Learning Representations (ICLR), 2025 (Spotlight).

Experience

North Carolina State University — Raleigh, NC, USA
Graduate Research Assistant; Advisor - Dr. Jung-Eun Kim — *September 2022 – Present*

- Discovered that spurious correlations are learned due to only a handful of all samples containing spurious features.
- Illustrated that attaining information regarding spurious features is often difficult without human intervention, rendering existing state-of-the-art techniques as ineffective.
- Created a data pruning technique to overcome spurious correlations without any domain knowledge or human intervention.
- **Current Research Directions**: Improving scaling laws in language based arithmetic tasks such as GSM8K and MATH bechmarks; Studying the role of data availability on spurious feature reliance; Identifying the impact of model compression on out-of-distribution generalization.

Sandia National Laboratories — Albuquerque, NM, USA
Graduate Research and Development Intern; Mentor - Dr. Carter Jameson — *May 2023 – August 2023*

- Built language models to identify occurrences of classified information in official government documents.
- Improved existing rule-based entity-linkers deployed within Sandia National Laboratories using Transformer-based language models.
- Utilized Transformer based language models and Question-Answering data from SQuAD2.0 to build robust classifiers.
- Leveraged classical machine learning techniques to build lightweight topic agnostic classifiers.

RoboTutor, Carnegie Mellon University — Pittsburgh, PA, USA(Remote)
Undergraduate Research Intern; Advisor - Dr. Jack Mostow — *January 2021 – May 2022*

- Reordered the Instructional Sequence of an Intelligent Tutoring System to enhance student learning and engagement with the help of metaheuristic optimization algorithms and machine learning.

UBS — Hyderabad, TG, India(Remote)
Summer Analyst Intern — *June 2021 – August 2021*

- Built tools to automate Data Engineering tasks that were being performed manually daily.

Awards

NC State Graduate Merit Award, 2024 (3000$)

NC State Travel Grant, 2025 (1000$)

Chancellor Merit Scholarship Award, 2018

Technical Skills

Proficient: Python, PyTorch, NumPy, Bash
Intermediate: Java, SQL, Scikit-Learn, Flask, spaCy