Mayank Goel

+91 789-054-5454 | themayankgoel28@gmail.com | <u>linkedin</u> | github

EDUCATION

International Institute of Information Technology - HyderabadHyderabad, IndiaB. Tech in Computer Science, CGPA: 7.96/10Jul. 2019 - Apr. 2023International Institute of Information Technology - HyderabadHyderabad, IndiaMS in Computational LinguisticsMay 2023 - Dec. 2024

EXPERIENCE

Researcher Aug. 2025 - Present

Lossfunk Bangalore, India

 \bullet Working on solving for moral realism through game theory and LLM simulations.

Research Engineer Mar. 2025 - Jul. 2025

IBM Research Bangalore, India

• Contributed to IBM's Granite LLM team, focusing on improving data quality for model training through advanced preprocessing techniques, synthetic data generation and ablation studies.

• Led efforts in distributed GPU training using FSDP, VLLM, and other model-sharding strategies to scale training and inference efficiently.

Researcher Jan. 2025 - Apr. 2025

AI Safety Camp Remote

• Part of a team selected by Prof. Masaharu Mizumoto of JAIST on a model to improve the morality of LLMs.

- Involved with discussions on philosophical grounding of research methodology, primarily around Virtue Ethics as a moral framework.
- Ran various finetuning experiments (using SFT/DPO) to test efficacy of our curated dataset.

Research Engineer Sep. 2024 – Mar. 2025

Deccan AI Hyderabad, India

Involved with benchmarking of models on various tasks, across modalities, such as tasks on image, speech, code.
Worked on automated QC for data generated by human annotators. Includes fine-tuning models on curated data.

Research Intern Oct. 2023 – Jul. 2024

ComplexData Lab, MILA AI

Remote

• Designed experiments using the Debate framework for uncertainty quantification of LLM outputs.

- Worked on experiments to analyze and visualize data from other team projects on uncertainty quantification.
- Work done during this phase was accepted to COLM '24 and NeurIPS SafeGenAI Workshop '24

Teaching Assistant Jul. 2021 – Apr. 2024

IIIT Hyderabad, India

• Was involved with designing and evaluating assignments and conducting tutorials for the course Introduction to NLP in Spring '22 and Advanced NLP in Monsoon '23

Research Intern

Jun. 2023 – Jul. 2023

Robert Bosch GmbH Bangalore, India

- Built upon an existing document hierarchal clustering project, add functionality to use sentence transformers.
- Built a robust pipeline to fine-tune sentence transformers using various methods.
- Developed a novel evaluation metric exclusively tailored to hierarchical clustering, addressing existing limitations
 with evaluation methods.

Research Associate Mar. 2021 – Feb. 2023

- Proxxar AI

 Fine-tuned Llama-7B on finance data using LORA and quantization. Did a hyperparameter search.
 - Developed a robust e-commerce website crawling pipeline using Apache Nutch and Selenium
 - Built a Spacy3 model utilizing Transformers for a production-grade custom NER model for an e-commerce company, as part of an end-to-end system, with a dataset augmented by 20% using fuzzy matching. Achieved accuracy of 91% on a multi-class system

Remote

Trivedi Centre for Political Data, Ashoka University

Remote

• Built a streamlit dashboard to display visualized data of MPs and Governors in India, which accepts a variety of parameters. Work can be viewed at [link].

Publications

Conceptual Limitations of Current AI Safety Approaches and Tokyo AI Safety Conference '25 Virtue Ethics as an Alternative

Authors: Masaharu Mizumoto, Rujuta Karekar, Mads Udengaard, **Mayank Goel**, Daan Henselmans, Nurshafira Noh, Saptadip Saha, Pranshul Bohra

Epistemic Integrity in Large Language Models

NeurIPS '24 SafeGenAI Workshop

Authors: Bijean Ghafouri, Shahrad Mohammadzadeh, James Zhou, Pratheeksha Nair, Jacob-Junqi Tian, **Mayank Goel**, Reihaneh Rabbany, Jean-François Godbout, Kellin Pelrine

Web Retrieval Agents for Evidence-Based Misinformation Detection

COLM '24

Authors: Jacob-Junqi Tian, Hao Yu, Yury Orlovskiy, Tyler Vergho, Mauricio Rivera, **Mayank Goel**, Zachary Yang, Jean-François Godbout, Reihaneh Rabbany, Kellin Pelrine

Joke Generation Using Masked Language Infilling on Automatically Ex-Humor Research Conference '23 tracted Templates

Authors: Mayank Goel, Abhijit Manatkar

Towards conversational humor analysis and design

Humor Research Conference '21

Authors: Tanishq Chaudhary*, **Mayank Goel***, Radhika Mamidi

Automated Evalauation of Conversational Prompts using Ordinal Ranking for Humor Genera-ICON '24 tion

Authors: Mayank Goel, Parameswari Krishnamurthy, Radhika Mamidi

TECHNICAL SKILLS

Languages: Python (proficient), Bash, Javascript, C++

Frameworks: PyTorch, HuggingFace Transformers, Streamlit, Selenium, SpaCy

AWARDS AND OTHER RELEVANT INFORMATION

- Research Award from IIIT Hyderabad in 2021
- Top 30 in the Indian edition of International Olympiad of Linguistics
- Participant, ARENA 2024, Spring
- Participant, AI Safety Fundamentals Course, BlueDot Impact
- Ex-head of University Debate Society and Humor Club
- Founder-Moderator of Philosophy Friday Discussion Group
- Best Project, Theme Track in Natural Language API Hackathon by expert.ai
- 1st Prize, Equity Track in HackUMBC, University of Maryland
- Best Web Application in HackAtHome, Brown University
- 3rd Prize, Walmart Track in TAMU Datathon, Texas A&M University
- 1st Prize, Stellantis Track in Megathon '22, IIIT Hyderabad