

VIPUL RATHORE

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RESEARCH INTERESTS

Natural Language Processing, Large Language Models, Cross-Lingual Transfer, Information Extraction, Low-Resource Languages, Fairness in ML models.

EDUCATION

PhD (Computer Science & Engineering) 2019 - 2026

Title [Integrating Task-Specific Models with Large Language Models for Cross-Lingual Transfer to Low-Resource Languages](#)

Advisor [Prof. Mausam](#), [Prof. Parag Singla](#)

College Indian Institute of Technology Delhi

CGPA 8.73/10

MTech. (Computational and Data Sciences) 2017 - 2019

Title Procedural Information Extraction from Scientific Documents

Advisor [Prof. Partha Pratim Talukdar](#)

College Indian Institute of Science Bangalore

CGPA 8.5/10

BTech. (Electrical Engineering) 2012 - 2016

College Indian Institute of Technology Bombay

CGPA 7.8/10

PUBLICATIONS

- Vipul Rathore, Malik Hammad Faisal, Parag Singla, Mausam. “Combining Distantly Supervised Models with In Context Learning for Monolingual and Cross-Lingual Relation Extraction”. *ACL 2026 (Main)*. San Diego, CA, USA. July 2026. (Acceptance rate (Oral): 3.5%)
- Vipul Rathore, Aniruddha Deb, Ankish Chandresh, Parag Singla, Mausam. “SSP: Self-Supervised Prompting for Cross-Lingual Transfer to Low-Resource Languages using Large Language Models”. *EMNLP 2024 (Findings)*. Miami, USA. November 2024.
- Vipul Rathore, Rajdeep Dhingra, Parag Singla, Mausam. “ZGUL: Zero-shot Generalization to Unseen Languages using Multi-source Ensembling of Language Adapters”. *EMNLP 2023 (Main)*. Singapore. December 2023. (Acceptance rate: 23%)
- Anand Brahmabhatt, Vipul Rathore, Mausam, Parag Singla. “Towards Fair and Calibrated Models”. *CoRR Technical Report*, 2023.
- Vipul Rathore, Kartikeya Badola, Parag Singla, Mausam. “PARE: A Simple and Strong Baseline for Monolingual and Multilingual Distantly Supervised Relation Extraction”. *ACL 2022 (Main)*. Dublin, Ireland. May 2022. (Acceptance rate: 21%)
- Keshav Kolluru, Samarth Aggarwal, Vipul Rathore, Mausam, Soumen Chakrabarti. “IMOJIE: Iterative Memory-Based Joint Open Information Extraction”. *ACL 2020 (Main)*. Online. July 2020.

RESEARCH EXPERIENCE

Senior Research Fellow, IIT Delhi (Present)

- Leading the *Adivaani* initiative to build Machine Translation, Automatic Speech Recognition (ASR), and Optical Character Recognition (OCR) tools for indigenous Indian tribal languages.
- Driving dataset curation through active coordination with 14 Tribal Research Institutes (TRIs), alongside leading grant writing and student mentorship.

Doctoral Researcher, IIT Delhi (2019 - 2026)

- Developed HYDRE, a hybrid LLM-based distantly supervised system achieving state-of-the-art performance in English and cross-lingual relation extraction. (Under Submission)
- Created SSP, a self-supervised prompting framework leveraging LLMs for cross-lingual transfer (EMNLP 2024 Findings).
- Designed ZGUL, a multi-source language adapter ensemble achieving zero-shot generalization across diverse language families for NER & POS tasks (EMNLP 2023).
- Designed PARE, a strong baseline for Distantly Supervised Relation Extraction (ACL 2022).

Masters Research Fellow, Ericsson Research Bangalore (2018-19)

- Automated troubleshooting over Ericsson documentation using GCNs and SRL-based graphs for procedural state tracking.

TEACHING EXPERIENCE

Teaching Assistant, IIT Delhi (2019 - Present)

- **Natural Language Processing:** Assignment and exam design, course materials, lectures.
- **Artificial Intelligence:** Designed board-game assignment, ran multi-stage student tournaments.
- **Data Structures & Algorithms:** Developed Java interfaces, drivers, and automated testcases.

AWARDS & HONORS

- *Great Reviewer Recognition*, ACL Rolling Review (ARR), Oct 2023 & April 2024
- *Prime Minister's Research Fellowship* (PMRF), (2020-24)
- *Best Teaching Assistant Award*, IIT Delhi (2021)
- *All-India Rank 567*, IIT-JEE 2012 (Top 0.1%)
- *KVPY Fellowship* (Young Scientific Encouragement Program), 2010-11
- *Ericsson Research Fellowship*, IISc Bangalore (2018-19)

SERVICE & OUTREACH

- **Reviewer:** JAIR (2021), ARR (2021-present), NAACL 2024, ACL 2024, NeurIPS 2026.
- **Presenter:** Google DeepMind Research Symposium 2025, Amazon Research Days 2024.
- **Organizer:** IISc AI Day (2019) & IIT Bombay TechFest (2012-13).

SKILLS

- **Technical:** Python, PyTorch, Bash, PEFT (LoRA/Adapters), Prompt Engineering, Agentic AI.
- **Conceptual:** NLP, ML, LLMs, Cross-lingual Transfer, Linear Algebra, Probability, Optimization.