# Mohit Singh Tomar

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#### EDUCATION

# Indian Institute of Technology Bombay

July 2024 - Present

PhD in Computer Science and Engineering | Advisor: Prof. Soumen Chakrabarti | CPI - 9.00/10

## Indian Institute of Technology Patna

July 2016 - June 2020

Bachelor of Technology in Electrical Engineering | CPI - 7.41/10

### EXPERIENCE

#### AI-NLP-ML Lab IIT Patna

Sep 2022 – July 2023

Junior Research Fellow | Advisor: Prof. Sriparna Saha

Patna, India

- Studied the relation between Sarcasm and Dialogue Acts and the role of modality order fusion in these two classification tasks in a multi-modal dialogue setting.
- Developed Plant Care Conversation dataset. It has conversations between user and agent regarding queries related to plants in multi-modal scenarios and build the multi-modal plant care assisting dialogue generation model.
- Studied the role of knowledge graph and patient self-report for disease diagnosis from the conversation between doctor and patient.

**OYO Rooms** Aug 2020 – Jun 2021

Software Developer Engineer-1

Remote

- Worked with HMS team, developed and maintained backend services for generating reports in OYO OS.
- Used Java, Spring, Spring boot, Microservice Architecture to develop the backend features of OYO OS.
- Worked with PostgreSQL, MongoDB and ElasticSearch databases.

# ACCEPTED PUBLICATIONS

Mohit Tomar, Tulika Saha, Abhisek Tiwari, Sriparna Saha. Action and Reaction go hand in hand! A Multi-modal Dialogue Act Aided Sarcasm Identification (LREC-Coling, Main 2024). [Paper] [Code]

Mohit Tomar, Abhisek Tiwari, Tulika Saha, Prince Jha, Sriparna Saha. An EcoSage Assistant: Towards Building A Multimodal Plant Care Dialogue Assistant (European Conference on Information Retrieval ECIR 2024). [Paper] [Arxiv][Code]

Mohit Tomar\*, Abhisek Tiwari\*, Sriparna Saha. Towards Knowledge-Infused Automated Disease Diagnosis Assistant (Scientific Reports 2024). [Paper] [Code]

Mohit Tomar\*, Abhisek Tiwari\*, Tulika Saha, Sriparna Saha. Your tone speaks louder than your face! Modality Order Infused Multi-modal Sarcasm Detection. In Proceedings of the 31st ACM International Conference on Multimedia 2023 Oct 26 (pp. 3926-3933). [Paper] [Code]

# PROJECTS

# Dialogue Graph Encoding [Code] | Pytorch

July 2022

- Created Dialogue Graph from dialogue between patient and doctor.
- Applied Graph Attention Network to generate dialogue embedding for medication recommendation.

# Graph Attention Network for licit/illicit transaction. [Code] | Pytorch

 $\mathrm{June}\ 2022$ 

- Bitcoin dataset from Kaggle is used for training graph attention network.
- It is node level classification task to determine licit/illicit transactions.

#### Online Certifications

Applied Machine Learning in Python [Link] Deep Learning [Link] Natural Language Processing [Link] January 2021

August 2021

March 2022