Rocktim Jyoti Das

Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi, UAE

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GitHub & Google Scholar

EDUCATION

Indian Institute of Technology Delhi

2018 - 2022

2023

2022

B. Tech in Electrical Engineering with Minor in Computer Science and Engineering CGPA: 8.541/10; Best undergraduate thesis project in Electrical Engineering.

Publications _

Preprints

* - equal contribution

- 1. MALMM: Multi-Agent Large Language Models for Zero-Shot Robotics Manipulation Harsh Singh*, Rocktim Jyoti Das*, Mingfei Han, Preslav Nakov, Ivan Laptev. submitted to ICRA 2025.
- 2. Beyond Size: How Gradients Shape Pruning Decisions in Large Language Models Rocktim Jyoti Das, Mingjie Sun, Liqun Ma, Zhiqiang Shen.

 Arxiv.
- 3. Can a Multichoice Dataset be Repurposed for Extractive Question Answering?

 Teresa Lynn, Malik H. Altakrori, Samar Mohamed Magdy, Rocktim Jyoti Das, Chenyang Lyu, Mohamed Nasr, Younes Samih, Alham Fikri Aji, Preslav Nakov, Shantanu Godbole, Salim Roukos, Radu Florian, Nizar Habash. submitted to COLING 2025.

Conference Publications

1. EXAMS-V: A Multi-Discipline Multilingual Multimodal Exam Benchmark for Evaluating Vision Language Models

Rocktim Jyoti Das, Simeon Emilov Hristov, Haonan Li, Dimitar Iliyanov Dimitrov, Ivan Koychev, Preslav Nakov. *Accepted in ACL Main*, 2024.

- 2. DKAF: KB Arbitration for Learning Task-Oriented Dialog Systems with Dialog-KB Inconsistencies Vishal Saley, Rocktim Jyoti Das, Dinesh Raghu, Mausam.

 Accepted in ACL Findings, 2023.
- 3. Synergizing In-context and Supervised Learning for End-to-end Task-oriented Dialog Systems Vishal Saley, Rocktim Jyoti Das, Dinesh Raghu, Mausam.

 Accepted in EMNLP Main, 2024.
- 4. Exploring Distributional Shifts in Large Language Models for Code Analysis Shushan Arakelyan, Rocktim Jyoti Das, Yi Mao, Xiang Ren. Accepted in EMNLP Main, 2023.
- 5. MediTOD: An English Dialog Dataset for Medical History Taking with Detailed Annotations Vishal Vivek Saley, Goonjan Saha, Rocktim Jyoti Das, Dinesh Raghu, Mausam.

 Accepted in EMNLP Main, 2024.
- 6. Factuality of Large Language Models: A Survey
 Yuxia Wang, Minghan Wang, Muhammad Arslan, Fei Liu, Georgi Georgiev, Rocktim Jyoti Das, Preslav Nakov.
 Accepted in EMNLP Main, 2024.

Thesis

Efficient Framework for Feature-Aware Graph Coarsening.
 Rocktim Jyoti Das*, Aditi Khandelwal*, Sandeep Kumar, Jaydeva.
 Undergraduate Thesis, Electrical Engineering, IIT Delhi, 2021 - 22.

AWARDS AND HONORS

- Selected for the prestigious Google Research India Predoctoral Research Program, 2023
- Rajiv Bambawale Cash Prize Award for best undergrad thesis project in Electrical Engineering.
- Anundoram Borooah Award, Government of Assam, India for academic excellence in high school. 2016

Work Experience ___

Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi

Sept, 2024 - Present

Research Associate II

Advisors: Prof. Ivan Laptev & Prof. Preslav Nakov

Working on advancing robotic manipulation by leveraging Vision and Language Foundational Models.

Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi

June, 2023 - Sept 2024

Research Associate I

Advisor: Prof. Preslav Nakov

Investigated the multimodal reasoning capabilities of state-of-the-art Vision-Language Models (VLMs) with the goal of enhancing their reasoning, and planning capabilities.

Data Analytics and Intelligence Research Group, IIT Delhi & IBM Research, India June, 2022 - June, 2023 Research Assistant

Advisor: Prof. Mausam

Worked on solving challenges related to task-oriented dialog systems and conversation-based medical diagnosis.

Intelligence and Knowledge Discovery (INK) Lab, USC

Aug, 2022 - Feb, 2023

Machine Learning Research Intern (Remote)

Advisor: Prof. Xiang Ren

Studied how the performance of LLMs with code capabilities such as Codex and ChatGPT are affected when encountering distribution shifts and how to improve it in the absence of labeled in-domain data.

Volunterring Experience

- Undergraduate Teaching Assistantship: Electrical Engineering, IIT Delhi
 - Physical Electronics Prof. Debanjan Bhowmik

Fall 2021

- Advanced Machine Learning - Prof. Sandeep Kumar & Prof. Jaydeva

Spring 2022

- Natural Language Processing - Prof. Mausam

Fall 2022

• Reviewing: ACL ARR December 2022, ACL ARR February 2024

SKILLS _

- Programming: C++, MATLAB, Python and LATEX
- Framework: PyTorch, PyTorch Geometric
- Software: CoppeliaSim, PyRep
- Robot: Franka Emika Research 3

SELECTED COURSEWORK

Introduction to Machine Learning, Natural Language Processing, Planning and Estimation for Autonomous Systems, Analysis and Design of Algorithm, Discrete Mathematics, Probability and Stochastic Processes, Convex Optimization, Fundamentals of Language Sciences .

References

- Dr. Mausam, Professor, Computer Science and Engineering Department, IIT, Delhi, Email: mausam@cse.iitd.ac.in.
- Dr. Preslav Nakov, Professor, NLP Department, MBZUAI, Abu Dhabi, Email: preslav.nakov@mbzuai.ac.ae.
- Dr. Ivan Laptev, Professor, Department of Computer Vision, MBZUAI, Abu Dhabi, Email: ivan.laptev@mbzuai.ac.ae.
- Dr. Xiang Ren, Assistant Professor, Department of Computer Science, USC, LA, California, Email: xiangren@usc.edu.