

Rocktim Jyoti Das

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EDUCATION

University of Maryland, College Park

2025 - present

PhD in Computer Science

Advisor: Prof. Dinesh Manocha

Indian Institute of Technology Delhi

2018 - 2022

B.Tech in Electrical Engineering with Minor in Computer Science and Engineering

WORK EXPERIENCE

Mohamed bin Zayed University of Artificial Intelligence, Abu Dhabi

June, 2023 - Aug, 2025

Research Associate II

Advisors: Prof. Ivan Laptev & Prof. Preslav Nakov

Robotic Manipulation and Reasoning.

Data Analytics and Intelligence Research Group, IIT Delhi & IBM Research, India

June, 2022 - June, 2023

Research Assistant

Advisor: Prof. Mausam

Goal-oriented Dialog with Large Language Models

PUBLICATIONS

Conference Publications

- BLAZER: Bootstrapping LLM-based Manipulation Agents with Zero-Shot Data Generation**
Rocktim Jyoti Das*, Harsh Singh*, Diana Turmakhan, Abdullah Sohail, Mingfei Han, Preslav Nakov, Fabio Pizzati, Ivan Laptev.
under review in ICRA 2026.
- MALMM: Multi-Agent Large Language Models for Zero-Shot Robotics Manipulation**
Harsh Singh*, Rocktim Jyoti Das*, Mingfei Han, Preslav Nakov, Ivan Laptev.
accepted in IROS 2025.
- MALT: Improving Reasoning with Multi-Agent LLM Training**
Sumeet Ramesh Motwani, Chandler Smith, Rocktim Jyoti Das, Markian Rybchuk, Ronald Clark, Philip Torr, Fabio Pizzati, Ivan Laptev, Christian Schroeder de Witt
accepted in COLM 2025, ICLR SSI-FM 2025.
- 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.
- Beyond Size: How Gradients Shape Pruning Decisions in Large Language Models**
Rocktim Jyoti Das, Mingjie Sun, Liqun Ma, Zhiqiang Shen.
Arxiv 2024.
- Synergizing In-context Learning with Hints for End-to-end Task-oriented Dialog Systems**
Vishal Saley, Rocktim Jyoti Das, Dinesh Raghu, Mausam.
Accepted in EMNLP Main, 2024.
- 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.
- Exploring Distributional Shifts in Large Language Models for Code Analysis**
Shushan Arakelyan, Rocktim Jyoti Das, Yi Mao, Xiang Ren.
Accepted in EMNLP Main, 2023.

Theses

- 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

- **Dean's Fellowship** awarded to selected first year students at University of Maryland, College Park 2025
- One of 12, of 20k applicants selected for **Google Predoctoral Research Program, 2023** 2023
- **Rajiv Bambawale Award** for best undergrad thesis project in Electrical Engineering. 2022
- **Anundoram Borooah Award**, Government of Assam, India for academic excellence in high school. 2016

ONGOING PROJECTS

Realistic and Interactive Simulation Environment for Robotic Navigation

Nov 2025 – Present

Advisor: Prof . Dinesh Manocha

Developing physics-aware, high-fidelity simulation twins of real-world environments from monocular video to train robust long-range robotic navigation policies.

Learning Dynamics Models for Deformable Objects

Oct 2025 – Present

Advisor: Prof . Ming C. Lin

Investigating effective state representations for deformable objects to learn dynamics models that can predict action outcomes and support effective planning.

SERVICE

- *Teaching Assistantship:*
 - Introduction to Data Science (UMD) - Prof. Maksym Morawski Fall 2025
 - Natural Language Processing (IITD) - Prof. Mausam Fall 2022
 - Advanced Machine Learning (IITD) - Prof. Sandeep Kumar & Prof. Jaydeva Spring 2022
 - Physical Electronics (IITD) - Prof. Debanjan Bhowmik Fall 2021
- *Journal Reviewer:* IEEE Robotics and Automation Letters (RA-L, 2025)
- *Conference Reviewer:* ACL ARR (Dec 2022, Feb 2024, Jul 2025), ICLR 2025, ICLR 2026, ICRA 2026
- *Organizer:* *Multimodal Reasoning Task* for ImageCLEF 2025 - Multimedia Retrieval Track at CLEF.
- *Outreach:* Mathematics tutor for high-school students at National Association of Blind, RK Puram, New Delhi.

SKILLS

- **Programming:** C++, MATLAB, Python and L^AT_EX
- **Framework:** PyTorch, PyTorch Geometric
- **Software:** CoppeliaSim, PyRep, RLBench, Issac-Sim
- **Robot:** Franka Emika Research 3

REFERENCES

- Dr. Ivan Laptev, Professor, Department of Computer Vision, MBZUAI, Email: ivan.laptev@mbzuai.ac.ae.
- Dr. Mausam, Professor, Computer Science and Engineering Department, IIT, Delhi, Email: mausam@cse.iitd.ac.in.
- Dr. Preslav Nakov, Professor, NLP Department, MBZUAI, Email: preslav.nakov@mbzuai.ac.ae.
- Dr. Fabio Pizzati, Postdoctoral Researcher, Department of Computer Vision, MBZUAI, Email: fabio.pizzati@inria.fr.
- Dr. Christian Schroeder de Witt, RAEng Research Fellow, University of Oxford, Email: cs@robots.ox.ac.uk.