

Aniketh Garikaparathi

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EDUCATION

IIIT Delhi, India

Bachelor of Technology (*with Honors*)
Computer Science and Design

December 2020 - May 2024

EXPERIENCE

TCS Research

Research Fellow
Advisors: Manasi Patwardhan, Lovekesh Vig

Aug 2024 - Present
Pune, India

Working on **AI4Research**. Assisting researchers through scientific paper recommendation, automated hypothesis generation, code generation etc.

MathWorks

Software Development Intern
Manager: Chirag Gupta

May 2023 - July 2023
Bengaluru, India

Worked with the Code Generation Team on researching and developing an MVP system for integrating LLMs with Simulink. Implemented a custom transpiler to parse ASTs and execute NL commands in a low-resource language.

PUBLICATIONS

MIR: Methodology Inspiration Retrieval for Scientific Research Problems

ACL 2025

Aniketh Garikaparathi, Manasi Patwardhan, Aditya Kanade, Aman Hasan, Lovekesh Vig, Arman Cohan

IRIS: Interactive Research Ideation System

ACL 2025 (System Demonstration)

Aniketh Garikaparathi, Manasi Patwardhan, Lovekesh Vig, Arman Cohan

PROJECTS

Recomposing the RL Building Blocks with Hypernetworks

Reinforcement Learning Course Project
Dec, 2023

Project Link: [GitHub Repository](#)

- Implemented a novel variation of the Soft-Actor Critic Deep RL algorithm that employed the use of Hypernetworks, a Deep Learning architecture where a neural network controls the weights of another neural network. Inducing a greater level of interaction between the task and action representations
- My variation introduced the use of a prioritized experience replay buffer and dual actor network, improving efficiency and stability.

3D Bounding Box Estimation using Deep Learning and Geometry

Computer Vision Course Project
Jan, 2023

Project Link: [GitHub Repository](#)

- Implemented 3D bounding Box Estimation algorithm using deep learning and geometry. We leverage the power of convolutional neural networks (CNNs) and multi-view geometry to estimate the bounding box dimensions of 3D objects from 2D images accurately.

Cab Booking Service Database

DBMS Course Project
Jan, 2022

Project Link: [GitHub Repository](#)

- Designed a database management system like Uber. The web application manages Data of drivers and their vehicle, customers, rides, ratings, and locations. The application makes use of concepts of indexing, triggers, views, and grants and includes embedded queries using Python's Flask framework to manage the backend.

SKILLS

Expertise Deep Learning, Natural Language Processing, Object Oriented Programming

Languages Python, Java, JavaScript, C/C++, MATLAB

Tools and Technologies PyTorch, Flask, Git, Docker, Simulink, Pandas, JavaFX, NetworkX

POSITIONS OF RESPONSIBILITY

Teaching Assistant, Prototyping Interactive Systems

Jan, 2024 - May, 2024

Mentor , Student Mentorship Program	Jan, 2023 - May, 2023
Club Coordinator , Philosoc (Philosophy Society of IIITD)	Oct, 2022 - Aug, 2023
Creatives Head , TEDx IIITD	Dec, 2021 - Feb, 2022
Organizing Team , Odyssey (Cultural Festival at IIITD)	Oct, 2022 - Jan, 2023

VOLUNTEERING

Volunteer, Chhalaang NGO Jan, 2023 - Dec, 2023

- Engaged in fieldwork activities, including community outreach and support initiatives, to address local needs.
- Conducted workshops to teach women valuable skills, empowering them for personal and professional growth.
- Provided public relations assistance, managing social media campaigns and events to raise awareness and support for the NGO's mission.

RELEVANT COURSEWORK

Advanced Programming, Algorithm Design & Analysis, Computer Organisation and Operating Systems, Discrete Math, Linear Algebra, Probability & Statistics, Fundamentals of Database Management Systems, Computer Networks, Deep Learning*, Computer Vision*, Reinforcement Learning*, Digital Image Processing*, Generative Adversarial Networks, Information Retrieval*

(* - Graduate Level Courses)