Aniketh Garikaparthi

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EDUCATION

IIIT Delhi, India

Bachelor of Technology (with Honors)

Computer Science and Design

Ahlcon International School, India

Class XII, Science + Economics

Central Board of Secondary Education

December 2020 - May 2024CGPA: 8.45/10.00

April 2019 - March 2020

Aggregate: 94.2%

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 May 2023 - July 2023 Bengaluru, India

 $Software\ Development\ Intern$ Manager: Chirag Gupta

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 Garikaparthi, Manasi Patwardhan, Aditya Kanade, Aman Hasan, Lovekesh Vig, Arman Cohan

IRIS: Interactive Research Ideation System

ACL 2025 (System Demonstration)

Aniketh Garikaparthi, 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 Project Link: GitHub Repository

Computer Vision Course Project

Jan, 2023

• 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

Project Link: GitHub Repository

DBMS Course Project Jan, 2022

• 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

• Undergraduate TA for junior year course Prototyping Interactive Systems (DES-206) at IIIT-Delhi, taught by Prof. Richa Gupta

Mentor, Student Mentorship Program

Jan, 2023 - May, 2023

Mentored students as part of the Student Mentorship Program, offering support and guidance to help them navigate
their academic and personal challenges.

Club Coordinator, Philosoc (Philosophy Society of IIITD)

Oct, 2022 - Aug, 2023

Working with Professors in institute and inviting guest lecturers to hold talks on exciting topics. Organizing events
and managing the club's finances.

Creatives Head, TEDx IIITD

Dec, 2021 - Feb, 2022

• Responsible for deciding the identity of TEDx, leading the Creatives Team, and marketing the event, working alongside a team of 20+ people for conducting the event.

PR and Organizing Team, Odyssey (Cultural Festival at IIITD)

Oct, 2022 - Jan, 2023

 Managing event logistics, coordinating with vendors and sponsors, and promoting the fest on social media and other channels.

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)