# Devansh Rastogi

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## **EDUCATION**

## Indian Institute of Technology Madras

Bachelor of Science in Data Science and Applications

## Guru Gobind Singh Indraprastha University

Bachelor of Technology in Computer Science, Minor in AI & ML

Chennai, Tamil Nadu Jan. 2024 – Dec. 2027 Dwarka, Delhi Sep. 2021 – July 2025

#### Experience

Research Intern May 2024 – Present

IIIT-Delhi

On-site, Networked Systems Lab

- Collaborating with a team in the Networked Systems (NetSys) Lab on a project with Marvell Technologies and IIT Hyderabad, focusing on simulating LLM inference workloads.
- Gained comprehensive understanding of RDMA Technology (Remote Direct Memory Access), core operating system concepts, and advanced C programming
- Enhanced teamwork abilities and contributed to building communication infrastructure for AI model inferencing

## Data Science Intern

IBM SkillsBuild — CSRBOX

Feb. 2024 - Mar. 2024

Remote

- · Acquired sound technical knowledge of data cleaning and preparation, statistical analysis and data visualization
- Tested this knowledge on the analysis of a real-world project through a case-study
- Learned to interpret the results of the analysis and presented them effectively

Liaison Officer July 2023

G20 Conference on Crime and Security in the age of NFTs, AI & Metaverse

Gurugram, Haryana

- Facilitated collaboration among G20 nations' representatives
- Ensured seamless communication on emerging NFT, AI, and Metaverse challenges
- Fostered collective strategies for global crime and security

## PROJECTS

## ${\bf Synthetic} \ {\bf RDMA} \ {\bf Traffic} \ {\bf Pattern} \ {\bf Generator} \ | \ {\it Wireshark}, \ {\it GenZ} \ {\it LLM} \ {\it Analyzer}$

 $June\ 2024-Present$ 

- Collaborated with a team to understand network packet traces in a distributed-computing environment for LLM inferencing workload
- Set up a virtual RDMA communication infrastructure for 6 VMs to communicate with each other, simulating a distributed-computing environment
- Generated synthetic RDMA traffic pattern for LLM inferencing workload using tools like Wireshark Dissector and GenZ LLM Analyzer

#### Hotel Reservation System | Ballerina, Choreo, React.js

Feb. 2024

- Implemented an API service using Ballerina programming language to demo a simple hotel reservation use case
- Developed front-end using React.js and built this project as a part of a buildathon conducted at my college
- Acquired sound technical knowledge about Ballerina and Choreo concepts
- Deployed the fully working Ballerina application on Azure cloud using Choreo

## Classify Song Genres from Audio Data | Python, NumPy

Jan. 2024 - Feb. 2024

- Applied machine learning algorithms to classify songs into genres
- Prepared the data set to apply principal component analysis (PCA)
- Trained a decision tree to classify the genre
- Used cross-validation to evaluate the models

## TECHNICAL SKILLS

Languages: Python, C, C++, Swift, SQL

Frameworks: Libfabric, SwiftUI

Developer Tools: Git/GitHub, VS Code, Xcode, JupyterLab, RStudio

Hardware Skills: Arduino, Raspberry-Pi, Circuit Design, Sensor Integration, GPIO Programming

#### Extra-Curricular Activities

Sports: Engaged in active participation and proficient organization of basketball and cricket events

YouTube: Passionate YouTube content creator with 100+ subscribers, featuring technical and diverse content

Volunteering: Engaged in regular, independent volunteering activities involving the preparation and distribution of freshly cooked meals to individuals in need