



# CHINMAY RAJPUROHIT



## ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	M.Tech in Computer Technology	Indian Institute of Technology Delhi	7.59
2022	BTU	Govt Engineering College, Ajmer	7.82
2018	CBSE	RSM International School, Jodhpur	82.4%
2016	RBSE	VSM Senior Secondary School, Rajasthan	89.33%

## SCHOLASTIC ACHIEVEMENTS

- **GATE 2024 (Computer Science & Engineering):** Secured All India Rank (AIR) **593** with a **99.52** percentile among **1.2+** lakh candidates.
- **Top performer** in 6-week **Internshala Trainings** on **Programming in Python with AI** (May–June 2020), scoring **90%** in the final assessment.

## INTERSHIPS

- **Ditansource, Remote(US Based)** (June, 2021 - August, 2021) : **Frontend Developer Intern**
  - Designed and developed **homepage**, **product listings**, and **user dashboards** with focus on **responsive design** and **usability**.
  - Enhanced **user experience** by improving **navigation**, fixing **layout issues**, and adding **useful features**.

## IIT DELHI THESIS

**Title: Robustness and Fairness** in Graph Neural Networks without Labels: A **Self-Supervised** Perspective.  
(July 2024 - Present)

**Supervisor:** Dr Sandeep Kumar, Associate Professor, IIT Delhi

### Description:

- Developed an optimization formulation for robust and fair graph neural networks (GNNs) using self-supervised learning, aligning node embeddings with denoised graph structures.
- Implemented the framework with PyTorch Geometric and Python, evaluating resilience against adversarial attacks and reduction of bias in graph representations.

## PROJECTS

- **Linux Kernel Development (v6.1.6), Operating Systems:** (Guide: Dr. Smruti R Sarangi, Professor, IIT Delhi) :
  - **System Call Monitoring Module:** Implemented custom system calls (**sys-register**, **sys-fetch**, **sys-deregister**) to track **heap memory usage** and **open file descriptors** of user-space processes.
  - Designed a **kernel module** using kernel level **doubly linked lists** for efficient process monitoring and interaction.
- **Matrix Inversion In RISC-V Assembly:** (Guide: Prof. Kaushik Saha, Professor, IIT, Delhi)
  - Implemented the **Gaussian Elimination Algorithm** to compute the inverse of  $n \times n$  matrix using **Risc V** Assembly Language.
  - Handled floating-point operations, memory access, and row operations like swapping, normalization, and elimination.
- **Cloud-Based Encrypted Password Manager:** (Guide: Prof. Sougata Mukherjee, Professor of Practice, IIT Delhi)
  - Created a cloud-based password manager on **Microsoft Azure** with **user authentication**, **encrypted vault storage**, and an **Azure SQL** database backend.
  - Built in **AES-256 encryption** and **CI/CD pipelines (GitHub Actions)** for stronger **data protection**, improved **scalability**, and consistent **deployment**.
- **Social Media Analysis for Disaster Management Using Graph Neural Networks:** (Guide: Prof. Sougata Mukherjee, Professor of Practice, IIT Delhi)
  - Examined the role of social media in disaster response by analyzing real-time data using **Graph Neural Networks (GNNs)**.
  - GCN, and GAT for **classification**, along with sentiment analysis and **topic modeling** to extract critical insights.

## TECHNICAL SKILLS

- **Languages:** C/C++ RISC-V Assembly, HTML, CSS, Python.
- **Tools & Platforms:** Git/GitHub, VS code, Docker, Linux, Azure, Jupyter Notebook
- **Systems and Databases:** Linux Kernel, x86\_64, AzureSQL, MySQL



# CHINMAY RAJPUROHIT



## IIT COURSE

Degree	Institute	CGPA	Dept. Rank
M.Tech in Computer Technology	Indian Institute of Technology Delhi	7.59	---

## COURSES DONE

Mathematical Foundations Of Co, Software Fundamentals For Comp, Computer Architecture, Special Topics In Computers 1, Mobile Computing