CHINMAY RAJPUROHIT

ACADEMIC DETAILS

Year	Degree / Board	Institute	GPA / Marks(%)
---	M.Tech in Computer Technology	Indian Institute of Technology Delhi	7.59
2022	B.Tech(CSE)	Govt Engineering College, Ajmer	7.82
2018	12th(CBSE)	RSM International School, Jodhpur	82.4%
2016	10th(RBSE)	VSM Sen Sec School, Rajasthan	89.33%

IIT DELHI THESIS

Title: A Unified Framework for Robust and Fair Self-Supervised Graph Representation Learning (July 2025 - Present)
Supervisor: Dr Sandeep Kumar, Associate Professor, IIT Delhi
Description:
- Developed a unified **optimization objective** for adversarial **robustness** and **fair** node embeddings without using labels.
- Derived an provably **convergent iterative algorithm** by using the principles of Block Successive **Upper Bound minimization.**
- Tested on real-world large-scale network datasets

SCHOLASTIC ACHIEVEMENTS

- **GATE 2024 (CSE):** 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**, scoring **90%** in the final assessment.

INTERNSHIPS

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

PROJECTS

- **Linux Kernel Development (v6.1.6), Operating Systems:** *(Guide: Prof. Smruti R Sarangi)* (Jan 2025 - Mar 2025)
  - Developed a **Linux Kernel module (v6.1.6)** implementing custom system calls to **register, monitor, and deregister** user-space processes.
  - Tracked per-process **heap memory usage** and **open file descriptors** using a kernel-level doubly linked list.
  - Designed a syscall interface **(sys-register, sys-fetch, sys-deregister, sys-traverse, sys-capset and sys-capreset)** for efficient interaction with the kernel module.

- **Matrix Inversion In RISC-V Assembly:** *(Guide: Prof. Kaushik Saha)* (July 2024 - Sep 2024)
  - Implemented **Gaussian Elimination Algo** to compute the inverse of n x 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 Mukherjea)* (Mar 2025 - May 2025)
  - Created a cloud-based password manager on **Microsoft Azure** with **user authentication**, **encrypted vault storage**, and an **Azure SQL** database backend.
  - Implemented **AES-256 encryption** to ensure stronger **data protection** and system security.
  - Set up **CI/CD pipelines (GitHub Actions)** to improve **scalability** and ensure consistent **deployment**.

- **Social Media Analysis for Disaster Management Using GNNs:** *(Prof. Sougata Mukherjea)* (Sep 2024 - Dec 2024)
  - Examined the role of social media in disaster response by analyzing real-time data using **Graph Neural Networks**.
  - GCN and GAT for **classification**, along with sentiment analysis and **topic modeling** to extract critical insights.

- **Video Summarization and Background Subtraction:** *(Guide: Prof. Sumantra Dutta Roy)* (Jan 2025 - Feb 2025)
  - Implemented **PCA** for high-variance frame selection and **K-means clustering** for efficient key-frame extraction.
  - Applied **Gaussian Mixture Model** background subtraction to create concise yet content-preserving video summaries.

TECHNICAL SKILLS

- **Languages:** C/C++(OOPs), RISC-V Assembly, HTML, CSS, Python, JavaScript
- **Tools & Platforms:** Git/GitHub, VS code, Docker, Linux, Azure, Jupyter Notebook
- **Systems and Databases:** Linux Kernel, x86_64, AzureSQL, MySQL
- **Cloud and DevOps:** Azure (App Service, Blob Storage, Cosmos DB), Kubernetes, Bash
- **Portfolio**: Portfolio
- **GitHub**: GitHub

Disclaimer: All the information on this page is entered by student.

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IIT COURSE

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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, Operating Systems, Cloud Computing, Minor Project, Network Security