

# Mankirat Singh

Roll No.: 102203620

Computer Engineering

Thapar Institute (TIET), Patiala

+91-9888034284

msingh2\_be22@thapar.edu

Github: MankiratSingh

LinkedIn

Portfolio

## EXPERIENCE

### Full Stack Developer Intern

July 2024 - Sep 2024

Storoo

Remote

- Developed a Partner, Buyer and Admin Panel Using NextJS and Postgres.
- Worked on AWS EC2 deployment using Docker and NGINX with blue green deployment strategy.

### Student Research Intern

January 2024 - Present

Thapar Institute of Engineering and Technology

On-site

- Developing and Implementing Accurate Parameters for the Genetic Algorithm based product to generate comprehensive time table scheduling system, resulting in a 30% reduction in scheduling conflicts.
- Revamped a database system to streamline data storage, yielding a significant 10% reduction in space utilization.

### Flutter Developer

June 2023 - Oct 2023

Teraforge Digital Lab

Remote

- Created a sleek mobile app for a startup, utilizing Material UI for an intuitive interface and firebase for backend.

## PROJECTS

### LUNAR (React, ThreeJS, YOLOv5, U-Net Image Segmentation)

August 2024

web portal and ML model to detect Safe Navigation Routes on Moon for rovers based on Chandrayaan 2 Data

[Project Link](#)

- Processed and Geo-referenced Chandrayaan-2 Images to render a 3D moon surface in Three.js.
- Used IIRS Spectral Data for Finding interest Points of Research.
- Awarded by President of India as National Winners at Bharatiya Antariksh Hackathon 2024 organised by ISRO.

### RRCC Software for Indian Army EME Unit(React, PHP, MySQL, Kafka)

June 2024

A product to Track Resources in the Command Center.

- Implement Pub-Sub Model for 5 to 7 operators for live feeding of the data and visualise it in better way.
- Developed optimal RESTful APIs in PHP for 7 different pages, driving a significant boost in operational efficiency.

### QNA Bot (Streamlit, RAG, Llama3, Faiss, PyPDF)

June 2024

Llama3 based bot to help class 12 students to get answers to their question from the book flamingo.

[Project Link](#)

- RAG based project vectored by chunks from about 12 chapter PDFs
- Used all-MiniLM-L6-v2 Sentence transformer with Faiss to create vector embeddings.

### Feedback App TIET (PHP, Flutter, MySQL)

December 2024

App to seamlessly collect and manage student feedback for teachers.

[Project Link](#)

- Crafted a frontend using Flutter, with the Session based authentication and API Integration.
- Also working on the Data Analytics APIs for the Admin Panel for viewing and handling data of 10000+ users.

## TECHNICAL SKILLS

Languages	C, C++, Python, JavaScript, Dart, PHP, GoLang, Typescript, HTML, CSS
Developer Tools	React MUI, GIT, Linux, CI/CD, POSTMAN, Node.js, Docker, npm, GitHub Actions
Frameworks	Flutter, Next.js, Angular.js, Express, WebRTC
Libraries	React JS, Pygames, Selenium, SKLearn, NLTK, transformers, Faiss, PyPDF2
Cloud/Databases	AWS, Google Cloud, SQL, Firebase, AppWrite, Azure, SQLite
Soft Skills	Video Editing, Team Management, Public Speaking

## EDUCATION

### Thapar Institute, Patiala

B.E COE

2026

CGPA: 8.06

### Dayanand Public School, Nabha

PCM, CBSE, Nabha

2022

Percentage: 90.3%

## POSITIONS OF RESPONSIBILITY

### Technical Head, Microsoft Learn Student Chapter, TIET

April 2024 - Present

- Contributed to 5+ open source projects like Supabase, MusicBlocks, Recruitment Portal and Link Generator.
- Led two teams of 15 and 5 developers as the Technical Coordinator through the development and deployment phases of the Makeathon 6 website, which received 2000+ visitors, and the app with over 300 users. (Link : [Website](#), [App](#))

### Core, Thapar Food Festival

September 2023 - November 2023

- Developed the website for North India's largest food festival. [\[Link\]](#)

## ACHIEVEMENTS

National Winners Bharatiya Antariksh Hackathon by ISRO for National Space day

August 2024

Runner Ups Rewarded at "HackTU 5.0" hackathon conducted by CCS TIET

February 2024

OWASP Internal Hack Winner 2nd place at "Internal Hack" conducted by OWASP TIET

July 2023