

GAUTAM KUMAR DIPANSHU

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GitHub | Portfolio

EDUCATION

Course	College / University	Year
B.Tech (Instrumentation and Control Engineering)	Netaji Subhas University of Technology	2023–Present
C.B.S.E (Class XII) – 84%	Mother Khazani Convent School	2022
C.B.S.E (Class X) – 95%	Mother Khazani Convent School	2020

WORK EXPERIENCE

- **Backend Developer Intern, SociolinQ**
 - Built end-to-end employee allocation and management system using **React**, **FastAPI**, and optimized relational database workflows.
 - Managed complete frontend/backend architecture, reducing employee allocation workflow time by **~60%**.
 - Optimized database queries, API workflows, and backend response handling, reducing request latency by **~45%**.
 - Helped migrate frontend state management from hooks to **Redux**, improving scalability and maintainability.

PROJECTS

- **ClipForge – AI Video Clipping Pipeline**
 - Built AI video clipping pipeline using **WhisperX**, **Gemini**, **FFmpeg**, and **LR-ASD**, reducing editing time by **85%**.
 - Developed active speaker detection, auto-reframing, and subtitle generation systems, processing and synchronizing **2+ hour** videos in under **10 minutes**.
 - Optimized GPU inference and CFR-normalized workflows, improving pipeline stability by **~90%**.
- **Legal Lenz – AI Powered Legal RAG Chatbot**
 - Built Legal RAG chatbot using **LangChain**, **ChromaDB**, and **Groq** across **400+ pages** of legal documents.
 - Engineered metadata-aware chunking and semantic retrieval, reducing irrelevant retrievals by **~90%**.
 - Optimized contextual vector search workflows and conversation memory handling for faster legal assistance.
- **CapStock – AI Powered Stock Prediction Platform**
 - Built stock prediction system using **Scikit-learn**, **RSI**, and sentiment analysis with **89% accuracy**.
 - Reduced API latency by **~65%** across **30+ tracked stocks** using optimized caching workflows.
 - Developed real-time **Streamlit** dashboard with forecasting analytics and interactive visualizations.
- **SketchByte – Generate Code from Wireframes**
 - Built AI-powered platform converting wireframes into functional **HTML/CSS/JS** code.
 - Developed responsive workflows using **Next.js**, **Tailwind CSS**, and **Framer Motion**.
 - Implemented history tracking and file-saving workflows for improved user experience.

POSITIONS OF RESPONSIBILITY

- **Tech Team Member | Junoon (Photography Club of NSUT)** Jan 2025 – Present
 - Built and maintained official club website using modern web technologies.
 - Collaborated with design and event teams to streamline digital workflows.
- **Volunteer Coordinator | NSS NSUT** Jan 2023 – Oct 2025
 - Organized multiple events and webinars with participation from **300+ students**.
 - Received **Volunteer of the Month** recognition for event management and coordination.

SKILLS

- **Languages:** Python, C++, JavaScript, TypeScript, SQL, C
- **Frameworks:** React, Next.js, FastAPI, Flask, Streamlit, Express.js
- **AI / ML:** LangChain, ChromaDB, Scikit-learn, Neural Network
- **Databases:** PostgreSQL, MongoDB, Firebase
- **Cloud / Tools:** Git, GitHub, FFmpeg, Linux, Redux, WhisperX,