

Neelesh Kumar Rana

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EDUCATION

JIMS Engineering Management Technical Campus, GGSIPU Affiliated <i>Bachelor of Technology in Computer Science Engineering</i>	Nov 2022 – July 2026
	8.79 CGPA

EXPERIENCE

Software Engineering Intern (Remote)	Sep 2025 – Dec 2025
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Joget Inc. (Malaysia)

- Worked on **production-grade low-code platform** used by enterprise clients; contributed features directly to deployed software.
- Designed and implemented a **Vector Database utility** to improve semantic search and context retrieval for AI-driven workflows.
- Optimized existing internal tools, improving response time and reducing redundant API calls through better caching and query handling.
- Conducted comparative evaluation of **Weaviate Vector DB** against **Elysia AI chat workflows** to benchmark retrieval accuracy and agent responses.

Vice President

Mar 2024 – Oct 2025

Hashtag Coding Society

- Led **10+ technical events** including hackathons, workshops, and speaker sessions across campus.
- Increased member participation by **40%** through structured mentorship programs and coding competitions.
- Managed inter-college collaborations with **3+ partner institutions** for joint technical initiatives.

PROJECTS

AI Auto Documentation Tool <i>Python, FastAPI, Streamlit, OpenAI, FFmpeg</i>	Live Demo
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- Built production-ready tool that automatically generates **comprehensive technical documentation** from demo videos using AI-powered video processing and LLM analysis.
- Engineered end-to-end pipeline with **frame extraction**, **audio transcription**, and **chapter segmentation**, processing videos up to 2 hours with automated timestamp generation.
- Developed **FastAPI backend** with asynchronous job queue for handling concurrent video uploads and **Streamlit frontend** for real-time progress tracking and PDF export.

AI Criminal Sketch Matching System <i>Python, Flask, React, MongoDB, TensorFlow, OpenCV</i>	GitHub
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- Built full-stack application for generating realistic criminal sketches from text descriptions using **Stable Diffusion** and matching them against a database of **10,000+ records**.
- Implemented **CNN feature extraction** (VGGFace) and **SVM classification** achieving **85-90% matching accuracy**; integrated **pix2pix GAN** to enhance sketch quality, improving accuracy by **15-20%**.
- Developed dual sketch creation methods: AI-powered text-to-sketch generator and drag-and-drop interface for manual composition using **React Konva** and **OpenCV**.

Inroute <i>React.js, Express, MongoDB, Gemini</i>	GitHub
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- Created a voice-enabled **route-finder** for differently-abled users, helping them safely navigate urban zones.
- Integrated **Gemini LLM + OpenAI APIs** for route assistance and real-time obstacle detection.
- Launched community-driven reporting system leading to **200+ obstacle reports** in 2 weeks.

TECHNICAL SKILLS

Languages: Python, C/C++, TypeScript, JavaScript, SQL (PostgreSQL), HTML/CSS

Frameworks & Runtimes: React, Next.js, Node.js, FastAPI, Django, Flask, Hono, WordPress

Libraries & Tools: TensorFlow, OpenCV, scikit-learn, LangChain, pandas, NumPy, Framer Motion, GSAP, ShadCN/UI, Zustand, Material-UI

ORMs & Databases: Prisma, Drizzle ORM, PostgreSQL, MongoDB

Developer Tools: Git, Docker, GCP, VS Code, Linux, PyCharm, IntelliJ

ACHIEVEMENTS

- Secured **Top 10 Position** among 250+ teams in national-level hackathon at **NIT Surat**, 2025.
- Got a offer of fund from a company for my project during research paper presentation.