

Pranay S B

📍 Bengaluru ✉ pranaysb2006@gmail.com ☎ +91-6363243662 🌐 [pranaysb](#) 🐙 [pranaysb](#)

3rd-year Electrical Engineering undergraduate. Open-source contributor to NVIDIA, OpenTelemetry, Voxel51, and Roboflow. Leading a funded edge vision prototype.

Education

Indian Institute of Technology Bhilai

2024 – 2028

B.Tech in Electrical Engineering

CGPA: 8.51/10

Experience

Project Lead, AI Vision Systems — MeitY GENESIS Grant Project

December 2025 – Present

Technology Innovation Hub, IIT Bhilai

- Selected for the competitive MeitY GENESIS EiR program and secured a **Rs 10 lakh competitive innovation grant** to prototype AI-driven vision sensing systems for smart infrastructure applications.
- Lead the technical development of the prototype — architecture, backend system design, and AI inference pipelines for low-latency edge vision systems.

AI/ML Research Intern

May 2025 – January 2026

Visual Intelligence and Learning Lab, IIT Hyderabad

- Reproduced and benchmarked DaViT and GenAD on real-world sensor datasets, documenting generalization under distribution shift; implemented 3D Gaussian Splatting for dynamic object removal.
- Fine-tuned BLIP for multimodal Visual Question Answering on a custom driving-scene dataset built from BDD100K's structured annotations, with custom annotation tooling; evaluated on 1,500 QA pairs: 96.00% relaxed lexical-match accuracy vs. only 83.47% under BERTScore, showing lexical match to be over-optimistic. [\[Live Demo & Model\]](#)

Team Member — AEGIS, Financial Intelligence Platform

October 2025 – December 2025

Inter IIT Tech Meet 14.0, IIT Patna — Pathway

- Part of an 8-member team that developed AEGIS, a multi-agent trading platform using Redis/Pathway streaming, FinRL/PPO, GPT analyst agents, debate-based reconciliation, and Alpaca paper execution.

Open Source Contributions

- **14 merged pull requests across 6 organizations** — NVIDIA NeMo-Agent-Toolkit, OpenTelemetry Python (CNCF), Voxel51/FiftyOne, embeddings-benchmark/mteb, Roboflow/trackers, and Kornia; authored fixes for **14 of 17 reported defects**.
- **NVIDIA NeMo-Agent-Toolkit** (4 merged) — fixed concurrent OAuth2 client isolation, instance-method @lru_cache memory leaks, and silently-ignored CLI configuration overrides.
- **OpenTelemetry Python** (2 merged) — fixed mutable Context objects and a TypeError in garbage-collected processors
- **Roboflow/trackers** (2 merged) — fixed camera-motion compensation crashes and zero-division in coordinate conversion, with regression tests for degenerate inputs.

Projects

Vani — Voice-First Multi-Lingual AI Assistant

[Live](#) [GitHub](#)

- Built a voice-to-voice assistant (STT → live retrieval → RAG-grounded LLM → TTS) helping rural Indian citizens navigate government schemes in their native language; **1st place, Build with Gemma , from 65 teams**. Sarvam AI STT/TTS, Tavily-grounded RAG to eliminate hallucination on policy data, Gemma-2-27B on Groq for sub-3-second end-to-end latency.

API Forge AI — Agentic SDK Generation Platform

[Live](#) [GitHub](#)

- Built a multi-agent LangGraph platform (Planner, Validator, Diagnoser, Coder, Executor) that converts OpenAPI specs into production-ready SDKs with self-healing code correction.

IPL Verse — Full-Stack Gaming Platform

[Live](#) [GitHub](#)

- Built and shipped a public, full-stack platform with an active user base, including an AI content pipeline generating 3,600+ items with Sentence Transformer deduplication cutting redundancy by 70%+.

Technical Skills

Programming Languages: Python, C++, TypeScript, JavaScript

Backend & Databases: Node.js, Express.js, FastAPI, REST APIs, SQL (PostgreSQL), MongoDB, Supabase

AI / ML: PyTorch, OpenCV, HuggingFace Transformers, LangGraph, Multi-Agent Systems, LLMs, RAG, LLM Evaluation

Developer Tools: Git, GitHub, GitHub Actions, Docker, Linux, OpenTelemetry, CI/CD

Achievements & Positions of Responsibility

- **1st Place, Build with Gemma 4**— built a voice-first AI assistant using Google's Gemma open-weight models, from 65 competing teams.
- **3rd Place, Pathway Hackathon** — real-time financial analytics platform built on Pathway's streaming tools.
- **2nd Place, TechSprint** (Google Developer Groups) — Flutter-based, Gemini-integrated campus app.
- **AI/ML Lead, Google Developer Groups & Core Member, DSAI Club, IIT Bhilai** — led deep learning workshops and bootcamps; mentored 30+ peers.