Tanmay Nath

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Professional Summary

Computer Science undergraduate specializing in Data Science with hands-on experience building AI-powered applications, geospatial systems, Android platforms, and full-stack prototypes. Active hackathon participant with experience taking ideas from problem definition to functional prototypes and investor-facing product presentations.

Education

Shri Shankaracharya Institute of Professional Management and Technology (SSIPMT), Raipur **2025 – 2029**
B.Tech in Computer Science Engineering (Data Science)

Dronacharya Public School, Raipur — Higher Secondary (CBSE) 2024
Sachdeva International School, Raipur — Secondary (CBSE) 2022

Technical Skills

Languages: Python, Kotlin, JavaScript, C, SQL
Frontend: React, HTML, CSS, Jetpack Compose, XML
Backend: Node.js, Express.js, FastAPI, REST APIs
Databases: MongoDB, MySQL, Firebase Firestore
Tools & APIs: Git, GitHub, OpenLayers, Google Maps, Gemini API, JWT, Recharts

Projects

FLINT – Fleet-Level Infrastructure Network Triage *HACKBIOS 2K26 – 1st Runner-Up*
- Built an AI-powered bus-camera urban sensing platform that analyzes recorded transit footage to detect potholes, road cracks, waterlogging, missing dividers, and other road hazards.
- Designed severity-based alerts with GPS-tagged evidence, multi-bus confirmation, and selective vision-language-model verification to prioritize actionable reports.
- **Tech:** Python, YOLOv8, ByteTrack, OpenCV, PyTorch, FastAPI, React, Qwen-VL/Ollama.

GeoProof – Independent Geospatial Reality Layer *IIIT Hackathon*
- Built a full-stack geospatial verification platform for CSIDC to identify gaps between government-reported infrastructure and physical reality across industrial land.
- Developed a Reality Score and Reality Gap engine to prioritize suspicious plots for targeted UAV inspection instead of auditing all locations.
- Implemented interactive OpenLayers maps, claims-vs-evidence verification, audit queues, UAV dispatch workflows, analytics, PDF reporting, and role-based access.
- **Tech:** React, Vite, FastAPI, SQLAlchemy, OpenLayers, AI/Geospatial Analysis.

EZseva – AI-Powered Healthcare Portal *CIH 2025*
- Built a role-based Android healthcare platform connecting patients and hospital administrators with appointment booking, medical records, hospital selection, and analytics.
- Integrated Gemini API for AI-assisted symptom-to-department recommendations and implemented complete English/Hindi localization.
- **Tech:** Kotlin, Jetpack Compose, Material 3, Gemini API, Navigation Component.

Nirmal Raipur – Civic Complaint Management Platform *Kalinga Hackathon*
- Developed a role-based civic management platform connecting citizens, field workers, zone administrators, and city administrators for location-based complaint resolution.
- Implemented GPS-based complaint routing, photo evidence, task assignment, worker tracking, analytics, and municipal accountability workflows.
- Awarded **Consolation Prize** at the Kalinga Hackathon.

FitLook – AI-Based Outfit Discovery & Shopping Platform
- Built a fashion discovery prototype connecting outfit inspiration with directly accessible product links, reducing the effort required to find similar clothing.
- Designed Firebase-backed outfit feeds, product mapping, detail pages, and a scalable foundation for future AI clothing detection and personalized recommendations.
- **Tech:** Kotlin, Android, XML, Firebase Firestore.

Experience & Leadership

Core Team Member – PayLift

- Contributed to the development of a functional mobile application prototype for PayLift, translating product requirements into a working user experience.
- Collaborated with the core team on product development and helped present the prototype to potential investors.

Hackathons & Competitions

- **HACKBIOS 2K26** – Won **1st Runner-Up** for FLINT, an AI-powered bus-camera urban sensing platform.
- **IIIT Hackathon** – Developed GeoProof, a geospatial infrastructure verification platform for CSIDC.
- **IEEE NAVONMESH 2025 Hackathon** – Participated in a 24-hour development challenge.
- **KU Hackathon** – Participated in a competitive software development challenge.
- **NIT Raipur Ideathon** – Participated in an innovation and problem-solving ideation event.
- **Hackowin (SSIPMT Internal Hackathon)** – Participated in an internal product development challenge.
- **Prayatna Hackathon, BIT Bhilai** – Participated in a competitive hackathon focused on technology-driven solutions.
- **Kalinga Hackathon** – Developed Nirmal Raipur; received a **Consolation Prize**.

Areas of Interest

Artificial Intelligence, Data Science, Geospatial Technology, Full-Stack Development, Android Development, Product Development, Hackathons