

Aayush Bindal

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LEADERSHIP & EXPERIENCE

Enactus Thapar

Sept 2024 – Present

Head of Research & Development

Patiala, India

- Leading R&D for Project Aarohan converting PET bottle waste into high-quality 3D printer filament achieving 95% prototype diameter consistency.
- Built and Deployed the organization's official | [web](#) presence using React.js and SEO improving digital traffic by 40%.

Team Oorja (GKDC)

Nov 2024 – Present

DAQ Department Engineer

Patiala, India

- Core DAQ engineer for GKDC Season 13 responsible for vehicle electronic integration and telemetry validation.
- Developed digital twin and data acquisition system using Simulink and C++ (Teensy/ESP32) monitoring 10+ parameters at 100Hz.
- Engineered multi-layer PCBs for sensor signal conditioning and automotive-grade noise reduction.
- Integrated Python telemetry dashboard with LoRa RF pipeline reducing latency by 35% enabling sub-10ms performance updates.

PROJECTS

NutriAI – AI Powered Nutrition Tracker | *React Native, Expo, Gemini API* | [GitHub](#) Feb 2026 – April 2026

- Shipped cross-platform nutrition tracker with 50+ active users supporting natural language meal logging.
- Implemented LLM-powered parsing pipeline with automatic fallback reducing meal logging time by 85%.
- Architected fully local data layer with secure API storage and JSON backup/restore with zero cloud dependency.
- Designed animated calorie rings, macro tracking bars and weight-tracking graphs using React Native Reanimated.

Atlas – AI Digital Memory Scrapbook | *Next.js, Context RAG, OpenRouter* | [Website](#)

Nov 2025

- Hackathon-winning web application transforming image collections into narrated digital diaries.
- Optimized prompt engineering reducing token usage by 25%.
- Implemented client-side canvas image compression achieving 80% smaller payload sizes.

ACM Thapar Timetable Generator | *React, Python, Pandas, iCal*

2024

- High-traffic scheduling utility used by 7000+ students for automated timetable generation.
- Created Python parser processing 60,000+ lines of raw Excel timetable data with 99.2% accuracy.
- Integrated iCal export enabling synchronization with Google Calendar.

EDUCATION

Thapar Institute of Engineering and Technology

Aug 2024 – Jun 2028 (Expected)

Bachelor of Engineering

Patiala, Punjab

- CGPA: 8.88 / 10
- Coursework: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks, DBMS

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C/C++, R

Mobile & Web: React, React Native, Next.js, Expo, Tailwind CSS

Backend: Node.js, Express.js, FastAPI, Flask, REST APIs, WebSockets

Databases: PostgreSQL, MongoDB, Redis

Data Science: NumPy, Pandas, Scikit-learn, Matplotlib, PyTorch

Engineering: MATLAB, Simulink, Embedded Systems, Arduino, IoT

Infrastructure: Docker, Linux (Bash), Git, AWS, GCP, CI/CD

HONORS & AWARDS

- Runner Up (2nd Place) – SabkaAI | [Deployment](#)** Jan 2026
- AI Impact Summit (Thapar x University of Queensland): Built JanMitra, a dialect-aware AI assistant for rural citizen accessibility.
- 2nd Place Overall & 1st in Innovation – GKDC Season 13 | [Repository](#)** Feb 2026
- Vice Champions nationally for advanced telemetry and electronic integration in electric go-kart competition.
 - Secured additional 2nd place finishes in Design Evaluation and Endurance Race.
- Top 50 Finalist – Hack4Delhi | [Website](#)** Jan 2026
- Ranked among the top 50 teams out of 2000+ participants for scalable urban infrastructure simulations.
- Winner – IEEE BIOS Hackathon SafeMode Track | [Demo](#)** Nov 2025
- Built ATLAS, an AI scrapbook platform recognized for high-performance UI rendering.