MANAS DEDGE

Software Engineer | Backend & Full-Stack

Pune, India (open to remote and relocation) | dedgemanas@gmail.com

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SUMMARY

Final-year Computer Science student (CGPA 8.0, graduating 2027) working as a Software Engineering Intern at uniTAD, a UK-based platform with paying customers. Works across a FastAPI and PostgreSQL backend, a Next.js website and a React Native app, including the CI/CD and migration path that ships them.

EDUCATION

DES Pune University — B.E. Computer Science & Engineering *2024 – 2027*

CGPA 8.0 / 10 (through Semester 6)

Zeal Polytechnic — Diploma in Computer Engineering *2021 – 2024*

79.20%

EXPERIENCE

Software Engineering Intern — uniTAD *(tadorg.com)* | *UK-based, remote* *Jun 2026 – Present*

- Engineered the Python (FastAPI) backend that serves paying customers: REST APIs, JWT authentication with role-based access, and a PostgreSQL schema evolved through 39 migrations.
- Diagnosed a production outage caused by development sharing the live database; restored service, isolated development and documented a deployment runbook that prevents a repeat.
- Authored 344 automated tests that gate every release in GitHub Actions CI/CD.
- Hardened Stripe billing across 3 failure states, and implemented consent-based product analytics with a 365-day data retention limit.
- Shipped an organiser email feature (batched, deduplicated, retry-safe), first used to reach a 100-attendee event.
- Resolved 21 real code-quality violations in the TypeScript (Next.js) frontend instead of suppressing the warnings.
- Created the React Native (Expo) mobile app as a second client of the same API, matching the website's design.

PROJECTS

Fraud Investigation Agent | *hackathon, team of two* | *Python, TigerGraph, MCP, scikit-learn* *Sep 2026*

- Developed an AI agent that investigates card-fraud alerts: it queries a knowledge graph through MCP tools and scores each alert with a gradient-boosting model trained on 5,565 closed cases.
- Restricted the LLM to explaining decisions while a rules engine makes them, so all 20 benchmark cases reproduce exactly; graph analysis exposed an undocumented ring of 19 cards on one device.

RAGgoa — Voice Question Answering | *hackathon* | *Python, FastAPI, Sarvam AI* *Aug 2026*

- Designed a speech-to-speech assistant in eleven Indian languages with a 200 ms target on its fast answer tier, reporting measured P50/P70/P100 latency rather than averages.
- Deployed the API on Render and the web interface on Vercel.

Driver Drowsiness Detection | *Python, PyTorch, OpenCV* *Jan 2026 – May 2026*

- Trained a CNN that detects driver drowsiness in real time from eye aspect ratio, head pose and blink rate, reaching 96.6% accuracy at 32 FPS.
- Published and presented the work as a Scopus-indexed paper at CIMA 2026, NIT Puducherry.

Self-Hosted LLM Server | *Linux, Ollama, Tailscale* *Mar 2025 – Jul 2025*

- Operated a Linux server alone for 5 months serving open-weight LLMs over a private VPN, with 0 ports open to the internet.
- Configured users, services and SSH key-only access, and diagnosed failures from system logs rather than restarting blind.

SKILLS

Languages: Python, TypeScript/JavaScript, SQL, Bash, Java, C++

Backend: FastAPI, REST APIs, JWT auth, PostgreSQL, Alembic, Stripe, Docker, GitHub Actions CI/CD, Linux

Frontend: Next.js, React, React Native (Expo), Vercel

AI & Data: LLM agents, RAG, Model Context Protocol, scikit-learn, PyTorch, OpenCV, TigerGraph

ACHIEVEMENTS & CERTIFICATION

- Smart India Hackathon (internal round): top 10 of 72 teams with a student mental-health platform.
- Volunteer, FOSSHACK open-source hackathon (event coordination).
- Claude 101 certificate, Anthropic (2026).

Languages: English (fluent) · Hindi (fluent) · Marathi (native) · German (B1)