Kanav Dhanda

+91 9915339443 | kanavdhanda@hotmail.com | linkedin.com/in/kanavdhanda | github.com/kanavdhanda

Computer Engineering undergraduate (graduating Jun 2027) building Go and Rust backends where correctness matters: zero double bookings for 3,000 students, zero lost messages under crashes, an air-gapped system for the Indian Army

Education

Thapar Institute of Engineering and Technology **Aug 2023 – Jun 2027**
B.E. in Computer Engineering, CGPA: 8.33/10 *Patiala, Punjab*

Experience

Sentinel **Jun 2025 – Aug 2025**
AI/ML Engineering Intern *Remote*

- Shipped an **air-gapped** check-in system in **Go** to an Indian Army facility: no internet, no cloud, so it had to run unattended on site with nothing to fall back on
- Wrote a Go RTSP ingest server that holds **1 connection per camera** and fans frames out to every model on **1 on-prem GPU**, instead of each model opening its own stream
- Validated in live CCTV trials before handover: **92%** one-shot recognition, with every false positive and negative logged and reviewed by hand

Projects

HOSMAS | *Go, TypeScript, PostgreSQL, AWS* **Oct 2024 – Feb 2025**

- Built by a Creative Computing Society (CCS) team: **6 Go services** running all **17 Thapar hostels**
- Absorbed **3,000 students** in the first second of allotment on one 2-vCPU EC2 instance with **zero double bookings**: one conditional SQL UPDATE acts as a 10-minute expiring room lease, so no lock server or queue
- Built the payments service: a **ledger** with **retries** and **reconciliation** so a hostel fee is never charged or booked twice

claudeCord | *Rust, Tokio, SQLite, React* | claudecord.kdhanda.com **Sep 2026 – Present**

- Built a Rust hub and CLI (installable via pip, npm or cargo) that runs Claude Code, Codex and agy agents across machines, steered from Discord
- Lost **0 acknowledged messages** in SIGKILL crash tests by committing to SQLite before every ack; **348 tests**, CI on x86 and ARM
- Load-tested to **9,000 concurrent connections** on about $15/month of CPU; batching cut LLM input tokens to **28%** of a plain group chat's (9 turns vs 32)

Reveye | *Next.js, TypeScript, SQLite* | reveye.co **Oct 2026 – Present**

- A live news desk for Indian manufacturers that flags stories touching their suppliers' suppliers and buyers, refreshed every **20 minutes**, with a short reason for each alert
- Collection runs on one $12/month VPS with folders as the queue: files written as .tmp and atomically renamed, SQLite hashes for dedup, ETag caching and backoff on 429s

Achievements

Hearth | *Amazon HackOn Season 6, national finalist, top 29 of 70,000+ teams | TypeScript, AWS Bedrock* **Jul 2026**

- Designed a **4-tier** Bedrock-backed home assistant that learns household routines from event logs; local rules above **0.85** confidence answer in **0.17 ms** with no cloud call
- Presented to senior Amazon engineers at the Grand Finale in Bengaluru

Amazon ML Challenge 2026, Top 60 of 20,000+ teams | *team of 4; Python, LightGBM* **Sep 2026**

- Linked **10M** noisy business records to 1.7M references at **0.9905 F0.5** with a 2-stage LightGBM re-ranker

Publications

NeuroSpeak | *Rastogi*, Dhanda* et al. ICLR 2026 TSALM Workshop (co-first author)* **Accepted**

- Self-supervised JEPA encoder decoding imagined speech from non-invasive EEG into text: semantic similarity **0.19 to 0.47** on **20,000+** sentences, scored on unseen subjects

Technical Skills

Languages: Go, TypeScript, JavaScript, Python, Rust, C++, SQL
Backend: PostgreSQL, SQLite, Redis, REST, WebSockets, distributed systems, concurrency, load testing (k6)
Infra and Tools: AWS (EC2, Bedrock), Docker, Linux, GitHub Actions, CI, Git
ML: PyTorch, FAISS, LightGBM, TensorRT, RAG

Leadership

Creative Computing Society, Thapar **Jul 2024 – Apr 2026**
Finance Secretary; Lead, Syrinx CTF *Patiala, Punjab*

- Held HackTU 6.0 at **99.9%** uptime through **2,200+** registrations; taught workshops to **100+** students
- Led the Syrinx CTF build with **5** other CCS members: wrote most of the frontend (**118** of 179 commits)