

Shashank Dhiman

Full Stack Engineer • Real-Time Systems • API & Backend Engineering

dhimanshshank15@gmail.com | +91 88476 80989 | [LinkedIn](#) | [GitHub](#) | [LeetCode \(225+ solved\)](#) | shashankdhiman.in

Full Stack Engineer with 1+ year shipping production-grade systems at scale — WebRTC proctoring for **200+ concurrent streams**, sub-100ms Socket.IO messaging, serverless AWS Lambda pipelines, and third-party API integrations (Stripe, OpenRouter LLM API). Node.js · PostgreSQL · Redis · React.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Java, Python, SQL

Front-End: React.js, Redux Toolkit, Next.js, Tailwind CSS

Back-End: Node.js, Express.js, REST API Design, Socket.IO, Microservices, Serverless (AWS Lambda)

Databases: PostgreSQL, Redis, ClickHouse, MongoDB

Real-Time: Mediasoup SFU, MediaPipe, WebRTC, Event-Driven Architecture, Redis Pub/Sub

DevOps & AI/LLM: Docker, Git, CI/CD, AWS (Lambda, SQS, S3), OpenRouter API, LLM API integration

DSA: 225+ LeetCode problems solved · Beats 93.9% of submissions

EXPERIENCE

Associate Software Developer — Venture Pact (Masters' Union EdTech)

Jan 2025 - Present

Phagwara, India • Node.js, WebRTC, Mediasoup, Socket.IO, Redis, PostgreSQL, AWS Lambda, React.js

- Built a WebRTC proctoring platform (Mediasoup SFU) for **200+ concurrent student streams** with behavioural classification (eye-gaze, tab-switch) via MediaPipe and OpenRouter-powered AI session summaries.
- Boosted proctoring throughput by **~35%** via async flow management; cut event query latency by **~50%** through PostgreSQL indexing.
- Engineered Socket.IO messaging (DM + group chat, read receipts, Redis presence, keyset pagination) — API latency down **70%**, DB load down **~40%**.
- Eliminated N+1 patterns via DataLoader batching, reducing DB round-trips by **~60%** for high-concurrency chat history.
- Designed and maintained RESTful APIs for 3+ internal services; integrated third-party APIs (Stripe, OpenRouter) and built a serverless AWS Lambda → ClickHouse analytics pipeline with multi-tenant event classification.

Software Developer Intern — Qspider

Jun 2024 - Jul 2024

Chandigarh, India • React.js, Node.js, MongoDB, Stripe, JWT, REST APIs

- Built Eventify, a MERN event platform with Stripe payment integration, JWT auth, RBAC, and webhook-driven payment state management; designed a modular RESTful API with middleware chaining and centralised error handling.
-

PROJECTS

AI Proctoring Platform • WebRTC · Mediasoup SFU · MediaPipe · Node.js · PostgreSQL · Redis · OpenRouter

- Mediasoup SFU routes 200+ RTP streams without per-stream decoding (O(1) CPU); multi-signal correlation (gaze + tab-switch + window state) prevents false escalations; OpenRouter LLM API generates post-session summaries.

Scalable Messaging System • Node.js · Socket.IO · Redis · PostgreSQL · REST API

- DM and group chat with read receipts, typing indicators, Redis ZADD presence, and keyset pagination (O(log n)); Redis caching cut API latency 70% under high concurrency.
-

EDUCATION

B.Tech, Computer Science & Engineering — GNDEC, Ludhiana

Aug 2021 - Jun 2025

CGPA: 8.45 / 10 • DSA, OS, DBMS, Computer Networks, System Design