

ADITYA SHAH

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SKILLS

AI / LLM: OpenAI API, Whisper, LangChain, LLM Pipelines, Prompt Engineering, RAG, Streaming Inference, AI Workflow Automation

Languages: TypeScript, JavaScript, Python, Go, Java, C, C++, SQL

Backend: Node.js, Express.js, FastAPI, Go HTTP, WebSockets, REST APIs, gRPC, Event-Driven Architecture

Frontend: Next.js, React.js, Tailwind CSS

Databases: PostgreSQL, MongoDB, Redis, Apache Kafka, Firebase

DevOps: Docker, Kubernetes, AWS, GCP, NGINX, GitHub Actions, CI/CD

EXPERIENCE

Tata Advanced Systems Limited (TASL)

June 2025 – Feb 2026

Software Engineering Intern

Mumbai, MH

- Architected **CTS-71** — a production-grade naval combat training platform (Node.js + WebSockets + React) sustaining **sub-100ms response** across concurrent sessions; adopted internally as a live-drill replacement.
- Engineered a **stateful WebSocket server** handling bidirectional event streams for multi-stage scenario progression — with per-session state isolation, conflict-free transitions, and auto-reconnection on drop.
- Built a **MongoDB aggregation pipeline** with custom scoring logic evaluating cadet performance across reaction latency, decision accuracy, and mission completion — persisted as structured post-exercise reports.
- Implemented **RBAC**, full session lifecycle (create, pause, resume, terminate), and per-action audit logging; containerized on **Docker + NGINX**, cutting estimated training costs by **60–70%**.
- Co-authored a peer-reviewed paper on Combat Management & Training Systems — [View Paper](#).

Bytefuse

June 2025 – Jan 2026

Software Engineering Intern

Remote

- Shipped full-stack product features end-to-end — built and versioned REST API endpoints in Node.js, integrated with React/Next.js frontend modules under production release cycles.
- Introduced **Redis server-side caching** on high-traffic API routes, reducing average response times and relieving database read pressure at peak load.
- Participated in feature scoping, code reviews, and iterative delivery cycles in a fast-moving startup environment.

PROJECTS

CTS-71 – Naval Combat Training Simulation

TASL Internship · 2025–26

Node.js, WebSockets, MongoDB, Redis, Docker, NGINX, React

Confidential · Internal Deployment

- Designed the **full backend from scratch**: event-driven Node.js + WebSocket server managing concurrent trainee sessions with stateful scenario engines, branching mission logic, and real-time instructor overrides via server-pushed events.
- Built a **Redis-backed session store** for fast state hydration on reconnect, and a MongoDB aggregation pipeline producing per-cadet performance reports across timing, accuracy, and multi-phase decision trees.

Meeting Bot – AI Meeting Intelligence Engine

1st Place · Industrial Hackathon 2026

Node.js, TypeScript, Whisper API, LLM API, Convex, SSE

[Live Demo](#)

- Built a **real-time AI pipeline** in under 24 hours: audio chunks streamed to Whisper (**<2s latency**) fed into a **chained LLM prompt system** — transcript → entity extraction → decision tagging → owner-assigned action items — streamed to clients via SSE.
- **Convex** powers the real-time backend — transcript segments and LLM outputs pushed live to all connected clients as the meeting progresses, zero polling; won **1st place** at a multi-company hackathon for production-readiness.

Automate Flow – Visual No-Code AI Automation Platform

Completed

Node.js, Next.js, React Flow, LLM API, PostgreSQL

[Live Demo](#)

- Built a **Node.js pipeline execution engine** that resolves node dependencies as a DAG, running each step — LLM inference, HTTP calls, data transforms — as isolated async tasks with conditional branching and loop-back support.
- Designed a **dynamic LLM orchestration layer**: each node exposes a configurable system prompt, model, and typed output schema; the LLM validates pipeline topology at build time and generates intelligent step suggestions on-the-fly.

ACHIEVEMENTS

1st Place – Industrial Hackathon 2026 (Meeting Bot) · Multi-company engineering challenge, judged on production-readiness.

1st Place – Internal Hackathon 2025 (Samadhan) · Outranked 70+ teams across all departments.

3+ National Hackathons · SPIT Hackathon 2025, InnovGenius Ideathon × TCS, Recursion 6.0, CodeCrafterz 2.0, and more.

EDUCATION

Vidyalankar Polytechnic

Diploma in Computer Engineering

2023 – 2026

Mumbai, MH