

Taran Jain

taranjain.in@gmail.com | +91 9461025704 | LinkedIn: Taranjain

EDUCATION

Indian Institute of Information Technology, Dharwad

Bachelor of Technology in Data Science & Artificial Intelligence – CGPA: 8.71/10

Minor in Cybersecurity

Dharwad, Karnataka

Aug 2023 – June 2027

Aug 2024 – May 2026

EXPERIENCE

AI for Good Advocacy Intern (Software Engineering)

May 2025 – July 2025

Head Held High Foundation

Remote / Bengaluru

- **Multilingual Chatbot Development:** Architected and deployed a real-time multilingual chatbot using Gemini and ElevenLabs APIs, integrating speech-to-text, translation, and AI reasoning for resolving work-related queries.
- **Rural Problem-Solution Mapping:** Conducted field research across 4 rural community segments (200+ individuals) to identify workplace challenges; synthesized findings into structured insight clusters and developed a strategic roadmap for AI-driven interventions.
- **Tech Stack:** React, Node.js, Express, PostgreSQL, Prisma, Redis, Socket.io, Docker — full-stack platform with JWT auth, Redis caching, real-time chat, and containerized deployment via Docker Compose.

PROJECTS

Scalixor – Distributed Real-Time Communication Platform

GitHub

Node.js, TypeScript, WebSockets, Redis Pub/Sub, WebRTC, Docker Compose, Caddy

- Architected a horizontally scalable, fault-tolerant, real-time platform supporting group chat and 1:1 WebRTC video calling across multiple backend instances.
- Implemented Redis Pub/Sub for cross-server message broadcasting, signaling relay, and global online coordination.
- Extended the system with a multi-room collaborative code editor (Monaco) synchronized via Redis Pub/Sub.

HealthVault – Secure Healthcare Data Sharing Platform

GitHub

Next.js, Node.js, Express, PostgreSQL, Prisma, Redis, Docker, JWT, AES-256-GCM

- Built a privacy-preserving medical records platform with AES-256-GCM envelope encryption (per-record DEK + master KEK), patient-controlled consent management, and RBAC across Patient, Doctor, and Admin roles.
- Implemented TOTP-based multi-factor authentication, JWT access/refresh token flow, and Attribute-Based Encryption (ABE) policies for fine-grained record-level access control.
- Designed a SHA-256 hash-chain blockchain audit trail for tamper-proof logs with admin-facing integrity verification.

Personal Finance AI Agent

GitHub

TypeScript, Node.js, Express, MongoDB, Redis, BullMQ, JWT, Docker, FastAPI

- Architected a multi-tenant financial platform with workspace isolation, role-based access control, and stateless REST APIs secured using JWT authentication.
- Implemented Redis caching and BullMQ background workers to support asynchronous AI tasks and recurring jobs.
- Integrated a Python FastAPI microservice for AI agent orchestration and containerized the system with Docker.

SKILLS

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

Core CS: OOP, Data Structures & Algorithms, System Design, DBMS, Operating Systems, Computer Networks

Backend & Systems: Node.js, Express.js, REST APIs, Microservices, JWT Auth, WebSockets, WebRTC

Infrastructure & DevOps: AWS(S3, EC2), Docker, CI/CD, GitHub Actions, Kubernetes, Git, Linux OS

Databases & Frontend: PostgreSQL, MongoDB, Redis (Pub/Sub), React.js, Next.js, Tailwind CSS

ACHIEVEMENTS & LEADERSHIP

Winter School – IIT Delhi (Dec 2024): Selected for program on Formal Verification & Program Synthesis.

GATE 2025 Qualified: Cleared Graduate Aptitude Test in Engineering (CS & IT).

Leadership: Web Development Lead – InQuizitive (IIIT Dharwad); Web Team – IEEE Student Branch; Member – College Website Team.