Irfan Tayyab

Full-Stack AI Engineer

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Education

BS in Computer Science, Virtual University of Pakistan

Final Year Project: an AI platform (FastAPI, LangChain, n8n) that routes students' queries from the web, email and WhatsApp. It uses Gemini with a Groq fallback, structured output and PII redaction, routing uncertain queries to a person.

Work Experience

Software Engineer, AmentoTech Pvt Ltd — Nov 2025 – Oct 2026

- Architected a **configuration-driven form system** powering 8+ multi-step variations, with schema branching and per-step validation, making new flows quick to add and easy for the team to build on together.
- Set up a **Turborepo monorepo** with shared linting, formatting and pre-commit checks (lint-staged), giving the team and its AI tools one consistent codebase.
- Created shared, reusable components and complex layouts with React Portals, turning Figma designs into pixel-perfect UIs with AI-assisted tooling and **minimal designer-developer revision cycles**.
- Engineered a **personalized widget dashboard** on a drag-and-drop grid (dnd-kit), letting users rearrange, resize and reshape widgets while the layout holds on every screen size.
- Adopted **AI-driven development** with Claude and Cursor, using prompt engineering to streamline the work, alongside AI-powered pull request reviews and the team's custom skills plugin.

Open Source Contributor, Plumb MCP — Aug 2026

- Fixed a Figma **UI freeze** in Plumb MCP's plugin bridge by moving selection sync from push to on-demand pull, removing a full node-tree walk on every click; merged with all 955 tests passing (commit ↗).

MERN Stack Engineer, Sprouto Group — Mar 2025 – Nov 2025

- Developed and integrated a **RAG-pattern AI chatbot** in **7 working days**, parsing documents with LlamaParse into Supabase to ground its answers in retrieved sources.
- Led full-stack development within strict deadlines, delivering the corporate website in **1 month** with SEO-friendly server-side rendering and scroll-based parallax animations.
- Designed a typed **API integration layer** with centralized error handling, alongside reusable, type-safe React components.
- Managed the database, file storage and client-side server-state caching, cutting load times on slow connections.
- Migrated **1.9 GB** of data from MySQL on AWS RDS to PostgreSQL on Supabase, and **3 GB** of files from AWS S3 to Supabase Storage, with **zero data loss**.

MERN Stack Developer, CodeFlamme Pvt Ltd — Jul 2024 – Feb 2025

- Built a **real-time chat system** and live notifications with Socket.io (WebSockets).
- Implemented one-time payments and **auto-renewing subscriptions** with Stripe and PayPal, plus a referral system and its financial operations.
- Secured routes with role- and region-based authorization, plus Google, LinkedIn and Facebook OAuth sign-in.
- Localized the frontend with i18next and established a multi-language transactional email system on the backend.

Skills

AI & Automation	LLM APIs (Gemini, Groq, Claude), LangChain, Structured Output, Model Fallback, RAG, Prompt Engineering, PII Redaction, NLP (Intent Detection, Entity Extraction, Text Classification), n8n Workflows, Gmail API, WhatsApp
Languages	Python, TypeScript, JavaScript, SQL
Python	FastAPI, SQLAlchemy 2 (async), asyncpg, Pydantic v2, Alembic, pytest, uv, Ruff, Pyright (strict)
Frontend	React.js, Next.js, Redux Toolkit, TanStack Query, React Hook Form, Zod, Tailwind CSS, Material UI, Figma
Backend	Node.js, NestJS, GraphQL (Apollo), REST APIs, WebSockets (Socket.io), JWT
Databases	PostgreSQL, MySQL, MongoDB, Prisma, Drizzle, Supabase, Firebase
DevOps & Testing	Docker, Docker Compose, Caddy, Oracle Cloud, Vercel, GitHub Actions (CI), Git, Jest/Vitest, React Testing Library