Manav Mehta

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Dubai, UAE | UAE Driving Licence

Summary

Software engineer working across booking platforms, AI systems and regulated finance. I take a product from the services underneath it through to the interface people use, and as a published researcher I am used to defending how a result was reached rather than only reporting it.

Education

Indian Institute of Information Technology Vadodara *May 2026*
B.Tech in Information Technology

Experience

Software Development Engineer *Nov 2026 – Present*
Esqyre, Dubai, UAE

- Rebuilt availability search on the **Esqyre booking platform** as a single indexed range query instead of per slot lookups, with hot inventory cached in Redis, cutting **p95 search from 3.2s to under 600ms**
- Eliminated **double bookings under concurrent load** with row level locking on inventory and **idempotency keys** on the reservation endpoint, so a retried request resolves to one booking rather than two
- Own **QA and release testing**, writing regression suites across the booking and payment paths, which **cut recurring bug reports by roughly 40%**
- Developed the **FC Bayern Academy** website at fcpathway.com for a sister company, building the responsive front end and setting up the **CMS** so marketing publish content without an engineer
  esumeItemAutomated **Meta ad campaigns** for the academy through the Marketing API, generating campaigns, audiences and creative variants from a config driven harness with automated budget rules and **Conversions API** events for server side attribution
- Fixed **Zoho lead chain and ad lead tracking**, resolving webhook failures and duplicate records through retries and deduplication on a stable lead key, restoring **end to end attribution** from ad click to qualified lead
- Advise sister company **Fractur** on compliant architecture for **SPV structures and real world asset tokenisation**, covering onchain and offchain records, investor eligibility and audit evidence

Software Engineer *Dec 2025 – Dec 2026*
Crypto Compliance FZCO, Dubai, UAE

- Developed the **DarkWhale Protocol**, a market intelligence platform whose signals feed partner investment firms and trading desks, as event driven services over **Redis Streams**, and rebuilt the **PostgreSQL and TimescaleDB** model with partitioning and covering indexes, taking reports **from minutes to seconds**
- Created **Regulatory RAG**, an assistant answering compliance questions with the governing clause attached, built on chunking, embeddings, hybrid search and reranking over a fine tuned model, **cutting analyst lookup time by roughly 60%**
- Led **onchain forensics and AML investigations**, tracing flows across wallets, bridges and mixers to flag over **$35M** in suspicious exposure with audit ready case files

Software Development Engineer Intern *Apr – Jul 2025*
DigitalRoar Ltd., Ahmedabad, India

- Developed a **fraud detection service** on a temporal graph neural network in PyTorch, owning data cleaning, feature construction and threshold tuning to reach **88% precision**, shipped into a live platform with Docker and **CI/CD**

Projects

fixgw, Order Gateway and Matching Engine *(Go)* github.com/manav2701/fixgw | live demo

- Built a **FIX 4.4 gateway** and price time priority **matching engine** handling the full order lifecycle, with pre trade risk controls, a kill switch and a tamper evident audit trail
  esumeItemVerified with **conformance suites, fuzzing and deterministic replay**, where benchmarking exposed a scaling fault that took the engine path from **650 to 10 microseconds**

Aperture, Spend Control for Enterprise AI getaperture.org

- Took a live product from idea to production alone on **Next.js and Supabase**, enforcing per agent keys, budgets and approval thresholds before any model call executes, and replaced fixed caps with rolling budgets, **halving wrongly blocked requests**

Technical Skills

Languages: Python, TypeScript, JavaScript, Go, C#, Java, SQL, Solidity
AI and ML: LLMs, RAG, Embeddings, Vector Search, LangGraph, MCP, PyTorch, XGBoost, NLP, LLM Evals
Web and Backend: React, Next.js, Node.js, FastAPI, ASP.NET, REST APIs, Webhooks, Microservices, Event Driven
Data and Infra: PostgreSQL, TimescaleDB, MongoDB, Redis, Supabase, AWS, Docker, Kubernetes, CI/CD, Linux
Testing and Growth: QA and Regression Suites, Fuzzing, Benchmarking, Meta Marketing API, Zoho CRM, CMS

Achievements & Research

Smart India Hackathon Finals: Top 6 of 88,000+ teams, built a data duplication detection system for INCOIS
Research: *RBD360* 360 Video Quality Dataset, Scientific Reports (2026) | *VR Cognition Study*, AIVR 2025
Certifications: AWS Certified AI Practitioner | NVIDIA Deep Learning | Chainlink Fundamentals
Competitive Programming: Codeforces 1200+ (Pupil)