

Maitrek Patel

AI Engineer | Software Engineer | Himmatnagar, Gujarat, India

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WORK EXPERIENCE

- **MAQ Software** January 2026 - April 2026
Associate Software Engineer Noida, India
 - Optimized enterprise metadata dependency validation pipelines using Apache Polaris and Microsoft Fabric, reducing Capacity Unit (CU) consumption by **92%** across large-scale workloads.
 - Engineered Medallion Architecture optimization strategies using **Delta Lake, PySpark, Azure Fabric, and OneLake**, reducing operational infrastructure costs by over **\$12K annually**.
 - Resolved Delta Lake Reader Version compatibility issues by migrating enterprise datasets from Version 2 to Version 1, enabling Polaris interoperability with an additional **16% CU reduction**.
 - **Tech Stack:** Microsoft Fabric, Azure, Delta Lake, Apache Polaris, PySpark, Python, Spark SQL.

EDUCATION

- **PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur** 2022 - 2026
Bachelor of Technology in Computer Science and Engineering | CPI: 7.2/10

PROJECTS

- **BrowserMind – AI-Powered Autonomous Browser Agent** | GitHub | Deploy Link: July 2026
 - Built an AI-powered autonomous browser agent capable of executing real-world web tasks from natural language using **20+ browser action tools**, including clicking, typing, scrolling, navigation, form filling, screenshots, and information extraction inside a secure VNC(Virtual Network Computing) based browser sandbox.
 - Engineered a LangGraph-based **multi-agent architecture** using the Handoff Pattern with Router and Memory Agents, combining persistent memory, RAG, fallback LLM routing, and structured tool calling to improve reliability across complex multi-step tasks.
 - Delivered a production-ready platform integrating Playwright, Google OAuth, Exa Search, and HITL approvals for CAPTCHA and sensitive actions, with persistent browser sessions supporting end-to-end browser automation.
 - **Tech Stack:** TypeScript, React, Next.js, Express.js, Playwright, LangChain, LangGraph, MongoDB, Zod.
- **Hive – Multi-Vendor E-Commerce SaaS Platform** | GitHub | Deploy Link: July 2026
 - Architected a microservices-based SaaS platform with dedicated services for authentication, products, sellers, and orders.
 - Implemented event-driven communication using Kafka, API Gateway, and service registry, achieving horizontal scalability to process large number of orders daily with the power of caching using Redis to reduce load on API.
 - Integrated Stripe Connect for secure split payments, ImageKit for optimized media handling, and real-time analytics with WebSocket dashboards.
 - **Tech Stack:** Microservices, Express.js, Next.js, Kafka, Redis, MongoDB, Prisma, Docker, AWS, Firebase, WebSockets, CI/CD, Swagger API Docs, Nx, ImageKit.

PATENTS & ACHIEVEMENTS

- **Patent:** Co-inventor of the Indian Patent "*A Handheld Device for Autonomous and Proactive Dental Health Check-up*" (Application No. **202521079920**), published by the Government of India.
- **Problem Solving:** Solved **500+ DSA problems** across LeetCode, GeeksforGeeks, Codeforces, and other competitive programming platforms.

TECHNICAL SKILLS

- **Languages:** C/C++, TypeScript, Python, JavaScript, Java, HTML+CSS, Bash
- **Web Development Tools:** Cursor, Git, GitHub, Docker, Postman, Jest, Swagger API
- **Backend:** NodeJS, REST, GraphQL, Socket.io, gRPC, Redis, Kafka, Nginx, RabbitMQ, Distributed Systems
- **Cloud/Databases:** MongoDB, MySQL, PostgreSQL, Redis, AWS, Azure
- **AI/Automation Tools:** n8n, MCP,A2A, RAGAS, LangChain, LangGraph, LangSmith
- **DevOps:** Linux, Nginx, Docker, Kubernetes, GitHub Actions, Terraform