

Gaurav Patel

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Professional Summary

A versatile Data & AI Engineer with a jack-of-all-trades mindset, bringing hands-on expertise across data science, data engineering, and machine learning to build end-to-end intelligent systems. Experienced in designing Generative AI solutions, multi-agent architectures, and retrieval-augmented pipelines, while also delivering actionable insights through data analysis and predictive modeling. Comfortable working across the full AI lifecycle—from data processing and model fine-tuning to scalable backend development and cloud deployment—focused on building efficient, production-ready solutions and automating complex workflows in real-world environments.

Education

PG Diploma in Big Data Analytics (PG-DBDA)

Aug 2024 – Feb 2025

CDAC Kharghar, Navi Mumbai

Bachelor of Engineering in Computer Engineering

Aug 2020 – May 2024

Dr. D.Y. Patil College of Engineering and Innovation, Talegaon (SPPU Pune)

Experience

Capgemini

Feb 2026 – Present

AI Engineer

- **Automated Manual Testing:** Architected a Python automation pipeline integrating LLM agents, Tesseract OCR, and structured JSON/YAML data to convert Word-based test specifications into device-ready Excel scripts, cutting manual script creation time by ~40%.
- **Merlin ITSM Assistant:** Built an end-to-end IT support agent powered by a **fine-tuned Mistral model (LoRA)** with a FastAPI backend, role-based user/admin consoles, and a full ticket lifecycle (auto-resolution, escalation to IT, user confirmation, closure); shipped a custom JavaScript frontend with live polling, threaded user-IT-admin chat, and an **in-browser predictive autocomplete** (unigram/bigram next-word model).
- **AI-Powered Resume Screening System:** Built a full-stack platform (**80% accuracy, 70% faster screening**) using a hybrid **TF-IDF, embeddings, and ChromaDB** pipeline for semantic JD matching, with a multi-page Streamlit interface for scoring, keyword search with re-ranking, and downloadable resumes; adopted internally by the RMG team.
- **Multi-Agent RAG System (LangGraph):** Developed a 5-agent architecture enabling query routing, context-aware response generation, and optimized chunking for high-relevance retrieval.
- **.NET Project Analyzer & Upgrader Agent:** Built an agent used by 3 teams that improved upgrade efficiency by **30%** via automated dependency resolution, security scanning, and API modernization workflows.
- **Agentforce (Einstein AI) Solutions:** Developed AI-powered chatbot and ML forecasting features, including real-time product retrieval, automated reminder systems, and customer-facing prediction interfaces.

Capgemini

July 2025 – Jan 2026

Data Scientist

- Engineered custom training pipelines for fine-tuning **SLMs, LLMs, and ML models** on structured and unstructured datasets (text, JSON, XML) using **LoRA and parameter-efficient techniques**.
- Optimized fine-tuning processes for **resource-constrained environments** (i5/AMD CPU, 16GB RAM, 8GB VRAM), enabling efficient, self-contained GenAI applications.
- Architected a **secure local model registry** for deploying fine-tuned models as autonomous AI agents, achieving **100% offline on-prem inference**.
- Developed a **custom Python framework following SOLID principles and OOP design** to automate fine-tuning workflows, integrating data preprocessing, training, and evaluation pipelines, reducing manual effort by **90%** and accelerating experimentation cycles.
- Implemented robust **MLOps practices** including auto-versioning, tracking, and rollback mechanisms for model artifacts and LoRA adapters in resource-constrained environments.
- Conducted a **Proof-of-Concept (PoC)** to validate model performance, documenting reproducible workflows and deployment using LM Studio.

Software Engineer

- Performed **LCM trend analysis** on 6-month historical data to identify underperforming projects across India, supporting data-driven decision making.
- Developed **interactive Power BI dashboards** to visualize regional performance trends, highlighting significant variations and actionable insights.
- Automated document workflows by developing **Python scripts** for modifying Word documents, improving operational efficiency.
- Built a **Python-based data extraction tool** to retrieve structured information from PowerPoint files, enabling seamless integration with **RPA workflows** for a major travel technology client.

Freelance**Independent Work**

Jan 2023 – April 2025

Data Engineering, AI/ML & Web Development

- * Delivered end-to-end software solutions across **data engineering, AI/ML, automation, and web development** for clients and independent projects over **2 years**.
- * **Raghuvanshi Rubber Industries** | **Live Project**: Developed and maintaining a responsive company website using **HTML, CSS, and JavaScript**, integrating Google Maps and dynamic UI components to enhance engagement and visibility.
- * **Enterprise Data Pipeline** | **GitHub**: Developed a scalable ETL pipeline using Python, dbt, Snowflake, Airflow, and Docker; improved processing speed by **45%** via model optimisation and Snowflake performance tuning.
- * **MailSweep Web App** | **GitHub**: Built a secure Streamlit app automating Gmail inbox cleanup via OAuth 2.0; reduced cleanup time by **70%** using automated filtering and Airflow-based scheduling.
- * **Sonar Rules Extractor** | **GitHub**: Wrote a concurrent Python script to extract SonarQube rules into a structured JSON database; achieved **3× faster** extraction using async requests with semaphore control.

TECHNICAL SKILLS

- **Programming:** Python, SQL
- **AI & Machine Learning:** Machine Learning, Deep Learning, NLP, LLMs, SLMs, Fine-tuning (LoRA), Predictive Modeling
- **Generative AI:** LangChain, LangGraph, RAG, Embeddings, Prompt Engineering, Agentic AI
- **Data & Databases:** ChromaDB, FAISS, Snowflake
- **Cloud & Tools:** Azure, GCP, OpenAI, Azure OpenAI, Git, GitHub
- **Frameworks:** FastAPI, Streamlit, Chainlit, REST APIs
- **Visualization & Others:** Power BI, Data Analysis, RPA Integration

CERTIFICATIONS | **Live– <https://crow-6-9.github.io/certifications/>**

- **GCP Associate Cloud Engineer** — 2026
- **Microsoft Azure AI-900** — 2025