

Jigar Thummar

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EXPERIENCE

AI Engineer (Early Employee)

Mar. 2025 – Present

VaultAI

Vancouver, Canada

- Architected an AI-powered client intake portal for **private credit firms**, enabling **natural language analytics** on financial data and automated extraction from **unstructured PDFs**.
- Developed automated financial auditing workflows, including **Financial Health Checks** and **Bluesheet generation**, utilizing **Supabase** and **Edge Functions** for real-time processing.
- Engineered an autonomous **Due Diligence Agent** that orchestrates **multi-source web research** to synthesize **credit risk** and **legal compliance** into **production-ready PDF reports**.
- Designed a **Multi-Company Financial Comparison Agent** to benchmark fiscal performance across entities, reducing **manual comparison effort** by **60%**.
- Built **secure RAG pipelines** for **100+ confidential documents**, ensuring **enterprise-grade data privacy** and reliable grounding for complex inquiries.
- Fine-tuned Llama models** using **QLoRA** for domain-specific terminology, resulting in a **15% improvement in accuracy** and **reduced inference latency**.

Data Science Intern

May 2023 – Jul. 2023

Gilbert Research Center

Coimbatore, India

- Applied **Pandas**, **NumPy**, and **OpenCV** to perform **ETL** on **10K+ medical X-ray images**, implementing data quality checks and normalization pipelines for deep learning applications.
- Developed and trained **CNN models** using **PyTorch** on medical imaging datasets, achieving **87% classification accuracy** for early-stage diagnostic applications.
- Implemented **data augmentation** and cross-validation strategies, improving model robustness and **reducing overfitting by 12%** on test datasets.

TECHNICAL SKILLS

Languages & Databases: Python, SQL, R, NoSQL (MongoDB), PostgreSQL, Supabase, Vector Databases;

AI & Agentic Systems: Multi-Agent Systems, RAG Systems, LLM Fine-Tuning (QLoRA), Prompt Engineering, NLP, Model Evaluation & Guardrails;

Frameworks & Libraries: LangChain, LangGraph, Hugging Face, PyTorch, TensorFlow, scikit-learn, XGBoost, FastAPI;

Data Engineering: ETL Pipelines, Pandas, NumPy, PySpark, Hadoop, Data Normalization;

Cloud & MLOps: Azure OpenAI, AWS Bedrock, GCP, Docker, CI/CD (GitHub Actions), Cloud Run;

Visualization & Analytics: Tableau, Power BI, Grafana, Matplotlib

PROJECTS

EduSense | Deloitte AI Hackathon — 2nd Place Winner

2025

- Designed an AI-powered research assistant, building an intelligent research pipeline with Retrieval-Augmented Generation (RAG) to structure unstructured data from over 25 sources.
- Delivered an interactive dashboard visualizing trends and risks, enabling consultants to prepare proactive RFPs and develop data-driven strategic recommendations.

DDoS Attack Detection in Network Traffic | GitHub

2024

- Engineered over 10 temporal and statistical features from 22M+ web traffic records using PySpark and implemented unsupervised learning (Isolation Forest, K-Means) to detect anomalies.
- Identified 376 high-risk instances and 11 distinct behavioral clusters, delivering actionable security insights that enabled data-driven network optimization strategies.

Real-Time Indoor Air Quality Analytics Dashboard | *SmartLocation, Vancouver* | GitHub

2025

- Built an end-to-end IoT data pipeline (ETL) and developed time-series forecasting models (ARIMA, XGBoost) to predict CO2 levels with 90% accuracy.
- Deployed an interactive Grafana dashboard with a custom-designed KPI score and automated alerting system to enable real-time monitoring and proactive interventions.

EDUCATION

Master of Professional Studies in Analytics

Jan. 2024 – June 2025

Northeastern University | GPA: 4/4

Vancouver, Canada

Bachelor of Technology in Computer Science and Engineering

Sep. 2019 – Apr. 2023

Parul University | GPA: 8.2/10

Vadodara, India