Shashwat Singh

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TECHNICAL SKILLS

Generative AI & NLP: Prompt Engineering, RAG, Fine-tuning, MCP, Agent Creation
Machine Learning: LSTM, CNN, Scikit-learn, TensorFlow, PyTorch
Frameworks: LangChain, CrewAI, Hugging Face
Data & Vector Stores: AstraDB, ChromaDB, Pinecone, FAISS
Dev Tools: Python, SQL (MySQL, PostgreSQL), Git, Docker
MLOps: MLflow, DVC, DagsHub, GitHub Action

PROFESSIONAL EXPERIENCE

Nest India   Jan 2025 – Mar 2025
Data Analyst

- Performed exploratory data analysis (EDA) on fintech reviews using Python and NLP techniques, improving insight accuracy by 35% and reducing turnaround time by 40%
- Wrote optimized SQL queries and used Python (Pandas, NumPy) to extract, clean, and analyze customer data for dashboard development and business insights

PROJECTS

AgriGPT – Plant Disease Classification and Agriculture Expert   *Feb 2025 – Present*

- Built an intelligent crop diagnosis platform combining image classification, weather-aware recommendations, and generative AI
- Trained a CNN model with 92% accuracy for plant disease recognition using TensorFlow/Keras
- Integrated Groq/Gemma2-9b-it and OpenAI GPT-4 for multilingual, natural language-based recovery guidance
- Implemented AstraDB (Cassandra) vector store for context-rich treatment retrieval with CrewAI agents
- Enabled PDF report generation, SMTP-based email alerts, and real-time weather-aware recommendations via WeatherAPI
- Deployed as a full-stack application using Streamlit with optimized performance and user experience

StockSage – End-to-End LSTM Stock Prediction Platform   *June 2025*

- Developed a robust ML pipeline and Streamlit dashboard for real-time stock price forecasting using LSTM neural networks
- Integrated Twelve Data API for fetching historical stock data and visualizing $\pm$3% confidence intervals
- Tracked experiments using MLflow and performed hyperparameter tuning with Hyperopt for model optimization
- Used DVC for data versioning and DagsHub for collaborative remote storage and data lineage tracking
- Stored AI predictions and reasoning explanations in AstraDB for long-term tracking and vector-based retrieval

AI Email Manager using MCP – Gmail Automation Server   *April 2025*

- FastMCP-based Gmail automation using natural language commands
- Built SMTP/IMAP endpoints with Streamlit interface integrated with Claude
- Implemented secure OAuth2 authentication, input validation, and error handling

CERTIFICATES

Oracle Cloud Infrastructure 2025 Data Science Professional (1Z0-1110-25)   *Issued: 2025*

EDUCATION

VIT Bhopal University   Nov 2022 – Present
Bachelor of Technology in Computer Science and Engineering   *CGPA: 8.00*
YMCA Centenary School & College   2021
Higher Secondary Certificate (12th)   *77.6%*
YMCA Centenary School & College   2019
Secondary School Certificate (10th)   *80.0%*