Jashwanth S

Data Scientist & AI Specialist | Deep Learning Expert | Python, TensorFlow, Keras | ML Engineer

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SUMMARY

AI/ML Engineer with experience deploying machine learning systems processing 10+ million records. Proven expertise in MLOps pipelines, Deep Learning, and Generative AI with hands-on experience in Python, TensorFlow, and cloud infrastructure. Specialized in LLM fine-tuning, computer vision, and real-time inference systems with experience scaling ML applications for enterprise environments.

EDUCATION

BE (Honors) in Artificial Intelligence and Machine Learning, Visvesvaraya Technological University (GPA: 9.53 CGPA) — Aug '25, Bangalore, Karnataka, India

SKILLS

Programming Languages Python, Java, SQL, R, JavaScript, HTML, CSS
Frameworks & Tools FastAPI, Streamlit, LangChain, Transformers, SentencePiece, Ollama, OpenCV, Matplotlib, Seaborn, SciPy, Docker, Git, GitHub, TensorFlow, PyTorch, XGBoost, Scikit- learn, NumPy, Pandas
Cloud & Infrastructure AWS, Google Cloud Platform, SageMaker
Databases & Data Stores MySQL, Elasticsearch, MongoDB
Specializations & Techniques Deep Learning, NLP, Computer Vision, Predictive Modeling, LLM Fine-tuning, Generative AI, Retrieval- Augmented Generation (RAG), AI Agents, MLOps, Embedding Techniques, Feature Engineering, Data Preprocessing, Model Evaluation
Languages Malayalam, Telugu, Tamil, Kannada, Gujarati, Bengali, English

EXPERIENCE

Data Engineering Intern — Aug '24 — Apr '25
Ai Palette — Bangalore, India

- Managed and maintained more than 10 million records across production and duplicate datasets, ensuring data consistency and high availability, which decreased data retrieval errors by 25%.
- Engineered lightweight, optimized processing workflows tailored for live scenarios that increased system throughput by 35% and improved response times by up to 20%, supporting rapid decision-making processes.
- Spearheaded the development of scalable data pipelines that automated data movement into production environments, resulting in a 40% reduction in manual processing time and enabling near real-time analytics.

Data Engineer — Aug '25 — Present
Global Data — Bangalore, India

- Automated data pipelines with Apache Airflow processing 1M+ rows weekly across multiple databases, cutting manual effort by 60%.
- Mentored and managed interns in pipeline development to boost team productivity.
- Developed Spark-based data collection and enrichment pipelines, handling datasets of 100GB+ efficiently.
- Built a Google Search data pipeline integrating S3 and PostgreSQL, improving data ingestion speed by 40%.
- Reduced manual tagging time by 70% through automated workflows using LLMs and Spark.

VOLUNTEER EXPERIENCE

Yoga Instructor, Saraswathi Yoga Kendra — Bangalore, Karnataka, Aug '24 — Nov '24

Conducted weekly yoga sessions for students to promote physical and mental well-being.
Created tailored yoga routines for different skill levels, benefiting over 20 students.
Developed leadership and teaching skills by guiding students through structured sessions and monitoring progress.

PROJECTS

RAG system — Oct '23 — Dec '23

- Engineered a Retrieval-Augmented Generation (RAG) system utilizing Python, SentencePiece, and FAISS to process 5,000+ documents, achieving 2.3-second average retrieval time and 85% relevance accuracy based on manual evaluation of 200 test queries.
- Integrated comprehensive evaluation metrics such as BLEU, ROUGE, and BLEURT to measure response quality, achieving BLEU score of 0.34 and ROUGE-L score of 0.42 across 500 test question-answer pairs.
- Developed an end-to-end interaction platform combining document parsing, search capabilities, and response generation with Streamlit and transformers, supporting 10+ concurrent users with 95% uptime during testing phase.

SpeakEasy: Real Time Indian Language Translation Jul '24 — Dec '24

- Optimized transformer training workflows by fine-tuning models on 100,000 parallel sentence pairs across 6 Indian languages, achieving 23.4 BLEU score for English-Hindi translation and 21.8 BLEU score for English-Tamil translation.
- Developed an intuitive CLI and web interface utilizing HuggingFace transformers, enabling real-time translations with average latency of 1.8 seconds per sentence and supporting batch processing of up to 50 sentences.
- Expanded language support to include Kannada, Tamil, Telugu, Malayalam, Bengali, and Gujarati, creating a dataset of 50,000+ validated translation pairs and achieving consistent translation quality across all supported languages.

Predictive Maintenance for IoT Devices Jan '25 — Mar '25

- Engineered a machine learning system utilizing Python, Scikit-learn, and TensorFlow to forecast IoT device failures, achieving 92% accuracy on test dataset and 87% recall rate, enabling proactive maintenance strategies for 500 simulated IoT devices.
- Developed advanced feature extraction techniques from sensor data—including rolling averages and FFT—to enhance model performance; integrated models such as Random Forest, XGBoost, and LSTM which achieved 15% improvement in recall rates over baseline models.
- Deployed predictive models via Flask applications hosted on AWS cloud infrastructure, achieving 1.2-second average response time for real-time alerts; implemented interactive visualizations on Streamlit dashboards processing 10,000+ data points per device.

Waste Management System Oct '23 — Dec '23

- Engineered a CNN-based waste detection system that classified 10 distinct material categories with 92% test accuracy, training on 15,000 images and validating on 3,000 images across balanced datasets.
- Enhanced model robustness and generalization by applying advanced image augmentation techniques such as rotation, scaling, and flipping, expanding training dataset by 3x and improving cross-validation accuracy from 87% to 92%.
- Accelerated real-time waste identification by integrating the trained model with OpenCV, achieving 150ms average inference time per image while maintaining 90% precision rate on 1,000 test images.

CERTIFICATIONS

Explore Generative AI with the Gemini API in Vertex AI, Google Cloud Skills Boost — Jun '25

Inspect Rich Documents with Gemini Multimodality and Multimodal RAG, Google Cloud Skills Boost — Jun '25

Develop GenAI Apps with Gemini and Streamlit, Google Cloud Skills Boost — Jun '25

Build Real World AI Applications with Gemini and Imagen, Google Cloud Skills Boost — May '25

Prompt Design in Vertex AI, Google Cloud Skills Boost — May '25

Data Analytics Job Simulation, Quantium — Mar '25

Data Science Job Simulation, BCG — Mar '25

Machine Learning with Python, IBM — Oct '23

AWARDS

AIML Rank Holder Aug '25
New Horizon College of Engineering
Achieved **10th rank** in AIML department with a **CGPA of 9.53**, reflecting consistent academic excellence.
Award presented by **Manojkumar, IFS, Principal Secretary to the Government of Karnataka.**

Rajyapuraskar Award Apr '19
Governor of Karnataka, Bharat Scouts & Guides
Earned the **Rajyapuraskar Award**, the highest state-level honor in Scouting, recognising excellence in leadership, community service, outdoor skills, and discipline.
Led a patrol team of 12+ members, coordinating training drills, outdoor camps, and service activities that strengthened teamwork and safety preparedness.
Trained juniors in first aid, navigation, and expedition planning, contributing to a stronger and more self-reliant troop.

PUBLICATIONS

Management of Waste Using Object Detection Dec '23
Jashwanth S, Prajwal TS, et
Patent No: 202341082049 A

DECLARATION

I hereby declare that the above-mentioned information is true to the best of my knowledge and I bear responsibility for the correctness of the above-mentioned particulars.