VARUN WOODI RAGHAVENDRA

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SUMMARY

Aspiring ML & Data Science Specialist with 3+ years of industrial and project experience in machine learning, deep learning, and AI model development. Demonstrated ability to fine-tune advanced models, create user-friendly interfaces, and leverage data-driven insights to solve complex business problems. Seeking opportunities to apply and expand skills in both data science and AI, contributing to organizational growth and innovation.

TECHNICAL SKILLS

Languages	Python, R, MATLAB.
Frameworks	TensorFlow, PyTorch, LangChain, Apache Spark, Airflow, Flask.
Libraries	OpenCV, Pandas, NumPy, Scikit-learn, Seaborn, Hugging Face, Chainlit, Streamlit, Gradio, Deepspeed.
Machine Learning	Linear & Logistic Regression, Boosting, Bagging, SVM, Naive Bayes, PCA, Forecasting.
MLOps	CI/CD, Docker, MLflow, Kubeflow, Model Monitoring, Version Control
Deep Learning.	ANN, CNN, RNN, LSTM, Encoder-Decoder, Transformers, Computer vision, Natural Language Processing.
LLMs	Prompt Engineering, Fine-Tuning, RAG, Multimodal LLMs.
Mathematics	Statistics & Probability, Calculus, Linear Algebra, A/B testing, Hypothesis Testing.
Visualisation Tools	Power BI,Tableau.
Database	MySQL, PostgreSQL, MongoDB.
Cloud Platforms	AWS (SageMaker, S3, Lambda), Azure (Azure ML).

WORK EXPERIENCE

INFOSYS Ltd, Bangalore, India   **MAY 2021-AUG 2022**
SYSTEMS ENGINEER

- Designed and ran experiments for **time series data**, improving **forecast accuracy by 15%.**
- Contributed to projects aimed at enhancing pacemaker device safety by developing and testing Python scripts for real-time performance analysis. Improved testing efficiency by **30%.**
- Evangelized new machine learning technologies within the team and trained colleagues on adopting ML techniques.

VARUN ENTERPRISES, Bangalore, India   **SEP 2020-APR 2021**
DATA SCIENTIST

- Spearheaded development and deployment of CNN models for thread nut anomaly detection, boosting revenue by **12%.**
- Transitioned **custom CNN models** from research into product using Flask, resulting in a **50%** reduction in false positives.

HCL TECHNOLOGIES, Bangalore, India   **DEC 2018-DEC 2019**
SOFTWARE ENGINEER

- Maintained and troubleshot trading applications, achieving a 95% resolution rate for production issues within 24 hours.
- Implemented SQL queries for real-time data modifications, reducing system downtime by 20%.

ACADEMIC PROJECTS

Multimodal LLM-powered Medical Image Analysis   **JAN 2024 – AUG 2024**

- Developed a large-scale **Multimodal-LLM** system to enhance diagnostic accuracy, transitioning it from research to product.
- Fine-tuned **IDEFICS2, LLaVA 1.5 7B, and LLaVA-Med** models and built a seamless **Gradio interface** to help medical professionals interact with these models.
- Demonstrated significant advancements in brain MRI image analysis using **AI-driven automation**, which aligns with real-world AI product development.

Scalable ML Deployment with AWS   **FEB2024 – MAY 2024**

- Built automated data ingestion and transformation pipelines. Trained and optimized models, with **Ridge Regression** achieving the highest performance (R2 score : 0.88).
- Deployed the model on AWS Elastic Beanstalk using EC2 for scalable, real-time predictions. Integrated AWS services (EC2, ECR, Beanstalk) for cloud deployment. Implemented CI/CD with Git for seamless updates and scalability.

EDUCATION

UNIVERSITY OF MASSACHUSETTS, DARTMOUTH   **AUG 2024**
Master's in Data Science   GPA3.97/4.0

NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY, Bangalore, India   **JULY 2018**
Bachelor of Engineering in Electronics and Communication engineering   GPA: 3.1/4.0