Lakshmi T S

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Data Science & AI Professional

MSc Data Science graduate with expertise in predictive modelling, data analysis, and AI deployment. Passionate about transforming raw data into actionable insights using Python, SQL, and ML/DL frameworks. Proven ability to deliver end-to-end solutions from EDA to scalable APIs.

Core Competencies

Data Science: Predictive Modeling, Statistical Analysis, Feature Engineering, A/B Testing
Machine Learning: Scikit-learn, PyTorch, Ensemble Methods, Hyperparameter Tuning
AI Deployment: Flask, FastAPI, Docker, ONNX, Model Optimization (Pruning/Quantization)
Data Analysis: SQL, Power BI, Tableau, Excel, Hypothesis Testing
Tools: Git, CI/CD, REST APIs, OpenPifPaf, YOLOv12

Education

MSc Data Science & Analytics | Jain University, Bangalore (2023–2025)
BS Data Science and Applications (Foundational level) | IIT Madras Online (2022-23)
BSc Mathematics | Calicut University (2019–2022)

Professional Experience

Agentic AI Intern | Prodigal AI (Mar 2025 – Present)
- Edge AI Optimization: Compressed YOLOv12 model by 40% via pruning + distillation, achieving 4.5 FPS on edge devices.
- Computer Vision API: Developed a Flask-based exercise analyzer to detect posture errors (15% accuracy improvement over baseline).
- Automated Model Serving: Implemented CI/CD pipelines (GitHub Actions) for seamless API updates.

Data Science Intern | Sri Shankara Cancer Hospital and Research Centre (Jul–Aug 2024)
- Data Cleaning: Standardized 4 panchayat datasets, reducing missing values by 35%.
- Public Health Insights: Created interactive Power BI dashboards to visualize cancer incidence trends for stakeholders.

Key Projects

Brain Stroke Prediction (Dissertation) | Python, Scikit-learn
- Addressed class imbalance (1.8% stroke cases) using SMOTE/under sampling, achieving AUC 0.8933 (Logistic Regression).
- Engineered interactive features (BMI×Age), improving model interpretability for medical use.

AI Exercise Analyzer | Flask, OpenPifPaf
- Designed a video-based fitness coach that annotates posture errors and counts reps, with skeleton overlay visualizations.

Optimized YOLOv12 for Edge Deployment | PyTorch, ONNX
- Reduced model size by 40% via pruning + distillation while maintaining >90% accuracy.