Lasantha Kulasooriya

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SUMMARY

Highly motivated AI/ML and Data Science professional with comprehensive experience in developing, deploying, and optimizing intelligent systems. Proven ability to translate complex business challenges into data-driven solutions, leveraging expertise in machine learning, deep learning, and statistical modeling. Proficient in building scalable ML pipelines, deploying solutions to cloud and edge environments, and working with traditional and generative AI, including LLMs and multimodal AI. Collaborative and results-oriented, with a strong foundation in software engineering principles and a passion for driving innovation and measurable impact through data and AI.

TECHNOLOGY PROFICIENCY

Languages: Python, C++, Java, JavaScript, R, SQL

ML/AI Frameworks & Libraries: PyTorch, TensorFlow, Keras, scikit-learn, pandas, NumPy, LangChain, Hugging Face Transformers, Stable Diffusion, OpenCV, Librosa, Plotly, Matplotlib, Seaborn, Scipy

Deep Learning Architectures: GANs, VAEs, Diffusion Models, Transformers

Deployment & Optimization: Docker, ONNX, TensorRT, TensorRT-LLM, REST APIs

Developer Tools: Git, ROS

Cloud Platforms: AWS, Oracle

Edge AI Platforms: NVIDIA Jetson Orin

Databases: MySQL, Oracle SQL, MongoDB, Redis, Neo4j, Pinecone

BI Tools: Power BI

EXPERIENCE

Data Scientist — Oct 2024 - Present
Hype Invention — *Colombo, Sri Lanka*

- Developed AI solutions for advanced robotics, integrating machine learning, computer vision, and sensor fusion.
- Contributed to the development of intelligent automation and predictive models.

Associate Data Science and AI Engineer — Jul 2024 - Oct 2024
Janashakthi Insurance — *Colombo, Sri Lanka*

- Designed and implemented machine learning models for claim prediction and insurance recommendations, enhancing risk assessment and decision-making.
- Collaborated with business SMEs to translate use cases into data-driven solutions.

Intern Data Science and AI Engineer — Jan 2024 - Jun 2024
Janashakthi Insurance — *Colombo, Sri Lanka*

- Contributed to the development and implementation of an all-in-one insurance dashboard, improving data tracking and analysis for business insights.

EDUCATION

University of Peradeniya — Peradeniya, Sri Lanka
BSc (Hons) in Data Science, Faculty of Science — GPA: 3.65 — *2019 - 2024*

CERTIFICATIONS

Deep Learning Specialization (5 certificates) - Coursera *Issued Aug 2024*

Applied Data Science Module - WorldQuant University *Issued Jul 2024*

OCI 2024 AI Foundations Associate *Issued Feb 2025*

Large Language Models (Level 1, Level 2, Level 3) - H O.ai *Issued Jun 2025*

Introducing Generative AI with AWS - Udacity *Issued Aug 2024*

AI/ML Engineer (Stage 2) - SLIIT *Issued Aug 2023*

Computer Vision with Python - Udemy *Issued Nov 2023*

PROJECTS

Advanced Real-Time Intelligent Voice Assistant with Adaptive Context-Aware Information Retrieval
- Designed and implemented a real-time intelligent voice assistant with offline local models for context-aware information retrieval, deployed on NVIDIA Jetson Orin. Optimized for low-latency performance, featuring multi-layer fallback mechanisms, speech detection, and memory management for scalable, production-ready deployment.

Real-Time Scene Understanding Model Using the Florence2 Model
- Implemented a scene understanding model for autonomous robots, utilizing Florence2 VLM to analyze environments and control camera/gimbal for aesthetically pleasing photo capture. Demonstrates expertise in multimodal AI (Vision-Language), computer vision, real-time inference, and scene understanding.

Autonomous Robot Navigation Guidance System Based on Human Groups
- Developed and deployed on NVIDIA Jetson Orin, enhancing robot autonomy and real-world adaptability through real-time human detection, tracking, and spatial analysis. Incorporates object detection and tracking for navigation in resource-constrained environments.

End-to-End Multi-Stage Intelligent Financial Data Extraction System
- Developed an AI-powered system for financial data extraction from reports, preserving semantic relationships using layout-aware models and multi-strategy LLM extraction. Implemented intelligent validation, real-time updates, offline capability, and scalable architecture for accurate results.

A Deforestation Model Using Satellite Images
- Identified deforestation in a national park using satellite images from Landsat 8, demonstrating proficiency in image data analysis, feature engineering, and computer vision applications for environmental monitoring.

Customer Segmentation via Cluster Analysis
- Performed customer segmentation using cluster analysis techniques, supervised by Zone24x. This project demonstrates strong data analysis, unsupervised learning, and practical application of ML for business insights.

REFERENCES

Prof. Roshan D. Yapa

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I hereby certify that the above information is true and correct to the best of my knowledge.

30.07.2025

Lasantha Kulasooriya