Lasantha Kulasooriya

www.lk-ai.vercel.app
+94705356893 | lkulasooriya97@gmail.com | linkedin.com/in/lasantha-kulasooriya | github.com/LasaK97

Summary

I am a dedicated professional specializing in financial services, computer vision, robotics, and artificial intelligence. I leverage data-driven solutions to optimize decision-making and drive innovation across diverse domains. With expertise in developing advanced machine learning and deep learning models, I excel at analyzing structured and unstructured data, including images, audio, video, sensor data, and time series data. My skill set includes computer vision, natural language processing (NLP), reinforcement learning, and deep learning model optimization. I am proficient in data querying, manipulation, and visualization, as well as statistical modeling, predictive analytics, and real-time AI applications. Additionally, I have hands-on experience with edge AI, autonomous systems, and AI-driven decision support. As an AI/ML blogger, I actively explore and explain core machine learning concepts while staying updated with emerging technologies and industry advancements. My strong problem-solving skills, combined with the ability to communicate complex insights to both technical and non-technical stakeholders, enable me to contribute effectively to cross-functional teams. I am seeking an opportunity to apply my technical expertise and passion for innovation in a challenging and growth-oriented role.

Technology Proficiency

Languages: Python, R, Java, PySpark, C++, HTML, SQL, CSS, JavaScript
Frameworks & Libraries: Scikit-learn, TensorFlow, Keras, PyTorch, LangChain, Numpy, Pandas, nltk, Plotly, Matplotlib, Seaborn, Scipy, Selenium, Streamlit, Librosa, pyaudio, wave, rospy, supervision, OpenCV
Developer Tools: Git, Docker, ROS
Databases: MySQL, Oracle SQL, MongoDB, Redis, Neo4j, Pinecone
BI Tools: Power BI
Cloud Technologies: AWS, Oracle

Experience

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

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

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

AI/ML Blogger — Jul 2024 - Present
Medium — *Remote*

Education

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

St. Anthony's Boy's College — Kandy, Sri Lanka
Secondary and Advanced Level Education — *2008 - 2016*

Certifications

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

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

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

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

Computer Vision with Python - Udemy — *Issued Nov 2023*

Autonomous Driving Behaviors with LLMs & RL - AnalyticsVidya *Issued Mar 2025*

OCI 2024 AI Foundations Associate *Issued Feb 2025*

Projects

AI-Based Real-Time Football Analysis Project

- This project uses real-time tracking to detect players, referees, goalkeepers, and the ball on a football field. It identifies keypoints, field lines, jersey colors, and camera movement. The system maps data onto the field, tracks ball control, measures player speed, and provides performance analytics.

Real-Time Scene Understanding Model Using the Florence2 Model

- This project is designed for deployment on an autonomous robot that understands scenes and captures important moments using a camera. The system utilizes Florence 2 VLM to analyze the environment, and based on the detected scene, it controls the camera and gimbal to capture aesthetically pleasing photos.

Autonomous Robot Navigation Guidance System Based on Human Groups

- This system is developed to autonomously detects and tracks humans in real-time, clustering them into groups and analyzing their spatial formations. The system calculates optimal robot positions based on group characteristics, guides navigation to these positions, and signals when to take action. Includes visualization tools for system monitoring. This solution enables smart robot positioning in dynamic human environments.

Customer Segmentation Using Cluster Analysis for Amazon Sales Data with Dashboard

- This project segments customers based on demographic, geographic, and behavioral attributes using various clustering techniques such as k-means, K-Mode, Gaussian Mixture, Agglomerative, and K-prototype clustering. A dashboard was developed to visualize the identified customer segments.

AI-Powered Insurance Recommendation System

- This project is developed to help insurance agents recommend insurance policies to clients by personalizing their requirements based on their personal portfolios.

Insurance Claim Prediction Model

- This project estimates the claim amount of a policyholder during the policy period based on their personal portfolios.

Speech Emotion Recognition Using Deep CNN Model

- This project recognizes human emotions and affective states from speech, capitalizing on the fact that voice often reflects underlying emotion through tone and pitch.

A Deforestation Model Using Satellite Images

- This project identifies deforestation in the Horowpathana National Park using satellite images taken by the Landsat 8 satellite.

Advanced Statistical Analysis Projects Using R

- Various projects developed, such as canonical correlation analysis, principal component analysis, factor analysis, multivariate data analysis, etc., using the R programming language.

References

Prof. Roshan D. Yapa
B.Sc. (SJP), M.Sc. (CMB), D.Eng. (Hiroshima, Japan)
Professor in Department of Statistics &
Computer Science, Faculty of Science,
University of Peradeniya
Tel: +94718184896
Email: roshany@sci.pdn.ac.lk

Mr. M.T.K Himal
Data Scientist, HNB
Level 17, HNB Tower, T.B Jaya Mawatha
Colombo 10
Tel: +94716461849
Email: tharindu.himal@hnb.lk

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

20.04.2025

Lasantha Kulasooriya