

ISURU ALAGIYAWANNA

HEAD - AI ENGINEERING

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PROFILE SUMMARY

Accomplished data science professional with extensive experience in machine learning and a specialization in large language models. Demonstrated expertise in leading and managing complex data science projects, mentoring cross-functional teams, and collaborating with stakeholders to deliver impactful, data-driven solutions. Proficient in conducting advanced data analysis, developing predictive models, and optimizing decision-making processes. Committed to staying abreast of state-of-the-art industry trends and actively contributing to research and innovation initiatives.

WORK EXPERIENCE

Head - AI Engineering

Aug 2024 - Present

Veracity Group (Pvt) Ltd.

- Lead and oversee three specialized AI teams in **Natural Language Processing (NLP)**, **Computer Vision**, and **Analytics**, providing strategic direction, technical expertise, and mentorship to drive innovation.
- Architect and implement advanced AI solutions, enhancing Veracity Group's products and services by leveraging cutting-edge technologies to improve efficiency, scalability, and performance.
- Spearhead the design and execution of **multi-agent AI systems** and **Retrieval-Augmented Generation architectures**, knowledge retrieval mechanisms, and automation pipelines to enhance real-time decision support.
- Collaborate cross-functionally with executive leadership, data science, and engineering teams, aligning AI strategies with business objectives and ensuring seamless AI adoption across the organization.
- Stay at the forefront of emerging AI research and industry trends, actively contributing to thought leadership, innovation initiatives, and AI-driven transformation within the enterprise.

Senior Data Scientist

June 2021 - July 2024

Axiata Digital Labs (Pvt) Ltd.

- Lead and manage data science projects, from problem formulation and data exploration to model development and evaluation, ensuring alignment with business goals and objectives.
- Mentor and coach junior data scientists, providing technical guidance, reviewing their work, and fostering a collaborative and learning-oriented environment within the team.
- Collaborate with stakeholders, including business leaders, data engineers, and software developers, to understand requirements, define project scopes, and deliver data-driven solutions that drive business value.
- Conduct advanced data analysis using machine learning, deep learning, and statistical techniques to extract actionable insights, develop predictive models, and optimize decision-making processes.
- Stay updated with the latest trends and advancements in data science, especially in the areas of Generative AI, contribute to knowledge sharing within the organization, and actively participate in research and innovation initiatives to enhance data science capabilities and methodologies.

Assistant Lecturer

Jan 2023 - Present

Sri Lanka Institute of Information Technology

- Deliver lectures, conduct tutorials, and facilitate discussions on topics related to information technology, ensuring clarity, engagement, and knowledge transfer to students.
- Develop and update course materials, including lecture slides, assignments, and assessments, aligned with the curriculum and learning objectives.
- Provide guidance and support to students, including mentoring on academic and career development, addressing queries, and offering constructive feedback on assignments and projects.
- Engage in research and scholarly activities, such as publishing papers, attending conferences, and participating in collaborative projects, to contribute to the academic and professional community.

Machine Learning and Computer vision Trainee Engineer

June 2019 - Dec 2019

LiveRoom (Pvt) Ltd.

PROJECTS

Knowledge Management System (KMS) SaaS Platform

Sep 2024 – Present

An AI-driven Knowledge Management System that enables organizations to store, retrieve, and interact with knowledge bases using conversational AI, Retrieval-Augmented Generation (RAG), and multi-agent workflows. With a multi-tenant architecture, automated knowledge ingestion, and real-time data integration, it ensures seamless access to information. Leveraging scalable cloud infrastructure, advanced user management, and voice-enabled interactions, KMS enhances efficiency, collaboration, and decision-making while automating complex knowledge workflows.

- Tools – LlamaIndex, OpenAI, Anthropic, FastAPI, AWS, CrewAI, LangFuse, LangGraph

Intelligent Call Center Agent

Jan 2024 – June 2024

Developing an AI-powered Call Center Agent leveraging Large Language Models (LLMs) with audio-enabled conversations to handle end-to-end user queries and deliver seamless customer support. The system is designed to be highly adaptable, enabling integration with domain-specific knowledge bases for accurate and context-aware responses across various industries.

- Tools – LlamaIndex, OpenAI, Anthropic, FastAPI, AWS, CrewAI

Automated Recruitment Platform

Dec 2023– Mar 2024

Automated Recruitment Platform which can utilize by both individuals and large organizations that can automate the recruitment process by uploading CVs and Job Descriptions. The system utilizes Large Language Models and Vision Models to extract necessary personas from documents through Dynamic Prompting and RAG systems.

- Tools – LlamaIndex, OpenAI, Anthropic, HuggingFace, React, FastAPI

Product Competitor Analysis

Feb 2023 – Aug 2023

Analyzed competitor products in a telecommunication network and developed data-driven recommendations to optimize customer acquisition strategies, achieving an 80% conversion rate.

- Tools – TensorFlow, SQL, AWS, Snowflake

Community Detection on Telecommunications Networks

Feb 2022 – Jan 2023

Developing scalable graph clustering mechanisms for a telecommunication consumer graph with over 25 million nodes, leveraging Graph Attention Networks (GAT) and Info-Flow Clustering to analyze customer behavior patterns and enhance segmentation insights.

- Tools – PyTorch geometric, PyTorch, NetworkX, DGL, AWS Sagemaker, Snowflake

Large Scale Intelligent Transport System (ITS)

Mar 2020 – Dec 2020

Developed a Large-Scale Intelligent Transportation System (ITS) for vehicle localization, queue length estimation, and pedestrian counting using deep learning and non-camera-based wireless technology. Responsible for applying ML techniques and deploying models on Edge systems for real-time processing.

- Tools – TensorFlow 2.x, scikit-learn, Python, Flask, Raspberry Pi

VOLUNTEER

PI and AI Event Ambassador

Nov 2021

Deeplearning.AI

Deep Learning and TensorFlow Alpha Tester

Nov 2021

Deeplearning.AI

EDUCATION

MSc. Big Data Analytics

2024 – 2026

Robert Gordon University, UK

- GPA – 4.0/4.0 (after 2 semesters)

BSc. (Hons) Electronic & Telecommunication Engineering

2016 – 2021

University of Moratuwa, Sri Lanka

- GPA – 3.7/4.2

CERTIFICATIONS

Practical Data Science Specialization (4 Certificates)

Amazon Web Servers

Machine Learning / Deep Learning Hands-on Projects (20 Certificates)

Coursera projects

Applied Data Science with Python Specialization (5 Certificates)

University of Michigan

TensorFlow Developer Certificate Specialization (4 Certificates)

deeplearning.ai

TensorFlow: Data and Deployment Specialization (4 Certificates)

deeplearning.ai

Machine Learning with Apache Spark (4 Certificates)

IBM

Natural Language Processing Specialization (4 Certificates)

deeplearning.ai

Deep Learning Specialization (4 Certificates)

deeplearning.ai

Generative Adversarial Networks Specialization (5 Certificates)

deeplearning.ai

Reinforcement Learning Specialization (4 Certificates)

AMII

SKILLS

Technologies:

- Deep Learning
- Machine Learning
- Large Language Models
- Graph Machine Learning
- Natural Language Processing
- Data Science
- Computer Vision

Languages:

- Python
- SQL
- JavaScript

Tools:

- Tensorflow
- LlamaIndex
- LangChain
- PyTorch
- Supabase
- PyG
- AWS
- Crew AI
- FastAPI
- git

ACHIEVEMENTS

- Published a paper titled "Device-free Pedestrian Count Estimation Using Wi-Fi Channel State Information" at the IEEE International Intelligent Transportation Systems Conference in Indianapolis, United States, in 2021.
- Awarded the AWS Machine Learning Engineer Scholarship by Udacity in 2021.
- Won the Intel Edge AI for IoT Developers Nanodegree Scholarship from Udacity in 2020.
- Certified as a Verified Artificial Intelligence Foundation Specialist by IBM in 2020.

NON- RELATED REFERENCE

Prof. Dileeka Dias

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