Pinil Dissanayaka

Machine Learning Engineer

Colombo, Sri Lanka | pinildissanayaka@gmail.com | +94786450938
https://pinildissanayaka.github.io/pinil/ | pinil dissanayaka | pinilDissanayaka

Summary

Motivated Machine Learning Engineer with a strong foundation in Artificial Intelligence, Machine Learning, and Data Engineering. Skilled in building AI systems, designing and training machine learning models, developing APIs, and constructing end-to-end data infrastructure. Experienced in deploying AI solutions on cloud platforms. Known for problem-solving, analytical thinking, and a collaborative approach to driving innovation and achieving goals. Passionate about leveraging AI to solve real-world challenges and create impactful solutions.

Education

Bachelors of Science (Hons) Computing and Information Systems June 2021 – present

- Sabaragamuwa University of Sri Lanka | Belihuloya
- GPA: 3.47/4.0

G.C.E Advanced Level Feb 2009 – Sep 2020

- President's College | Sri Jayawardhanapura - Kotte

Work Experience

Machine Learning Engineer | CodeGen International (Pvt) Ltd Feb 2025 – present

- Worked on the ABSOLX project, leveraging Stable Diffusion for image generation and AI agent optimization.
- Collaborated with teams to integrate scalable AI models into production systems.
- Conducted ongoing research to integrate the latest AI advancements, optimizing model accuracy.

Skills

Languages: Python, Java, JavaScript, PHP
Databases: MySQL, Microsoft SQL Server, PostgreSQL, MongoDB, Neo4j
Libraries: Numpy, Pandas, Statsmodels, Matplotlib, Seaborn, Plotly, NLTK, Scikit-learn, OpenCV, MLflow, Transformers, React
Frameworks: TensorFlow, PyTorch, LangChain, LangGraph, CrewAI, LlamaIndex, Flask, FastAPI, Django, Laravel
Tools & Technologies: GitHub, Git, Docker, Power BI, AWS, Apache Airflow, Apache Spark, Apache Kafka

Achievements

- **Top 10 Finalist, IEEE AI-Driven Sri Lanka 2024** – Selected for developing innovative AI-driven solutions in Sri Lanka president election.
- **2nd Runner-Up, Data Odyssey 2024** – Awarded for designing the Agri-Connect system.
- **Top 10 Finalist, CodeSprint - 8.0** – For innovative contributions to the AI-powered Skin-care application.
- **Winner, IEEE Innovation Nation Sri Lanka 2023** – For developing the AI-powered Glova app, which revolutionizes skincare personalization.
- **1st Runner-Up, TADHack 2023** – For innovative contributions to the AI-powered Agri-Connect app.

Projects

Multimodal RAG System:Integrating Text, Tables, and Images for Enhanced Document Retrieval — Oct 2024 – Dec 2024
MultiFetch-AI

- Processed diverse document formats, including text, tables, and images, using the Unstructured.io framework, achieving 95% precision in comprehensive data extraction.
- Designed and implemented a querying system to retrieve relevant information in multiple formats, reducing the query response time by 30%.
- Tools and Technologies : Python, LangChain, LangGraph, and Flask.

Election Insight App:Real-Time AI-Powered Platform for Transparent Election Insights — Aug 2024 – Oct 2024
Election-Insight-App

- Developed an AI-powered Election Insight App using LangChain and Large Language Models (LLMs) for real-time manifesto analysis, fact checking, voter insights, and manifesto matchmaking.
- Delivered a system general accuracy of 92% in identifying factual inconsistencies and providing actionable insights to users.
- Tools and Technologies : Python, LangChain, LangGraph, Unstructured, and Transformers.

Paddy Doctor:Automated Paddy Disease Classification System — Jun 2024 – Aug 2024
Paddy-Doctor

- Designed and developed a system that uses image processing and convolutional neural networks (CNN) to classify more than 10 diseases of the paddy crop with an accuracy of 98%.
- Tools and Technologies : Python, Flask, TensorFlow, Keras, and OpenCV

Glova:Revolutionizing Skincare with AI-Powered Personalization — Sep 2023 – Feb 2024
Glova

- Implemented advanced facial recognition technology to analyze skin types and conditions with 98% classification accuracy. Enabled precise assessments as a foundation for personalized skincare routines.
- Developed AI models to create tailor-made skincare plans achieving 95% user satisfaction based on feedback.
- Tools and Technologies : Flutter, Python, Flask, TensorFlow, Keras, OpenCV, and LangChain.

Agri Connect:AI-Powered Crop Recommendation and Disease Prediction System — Aug 2023 – Sep 2023
Agri-Connect

- Designed and implemented a Crop Recommendation Tool using long- and short-term memory (LSTM) models, achieving 98% precision in predicting optimal crops based on location, soil, and climate conditions.
- Developed a solution recommendation system using RAG architecture, leveraging local data sources to generate context-specific real-time treatment solutions for predicted diseases.
- Tools and Technologies : ReactJS, Python, FastAPI, TensorFlow, Keras, OpenCV, LangChain, and scikit-learn.

References

Dr. L.S Lekamge

- Head of Department, Faculty of Computing, Department of Computing and Information Systems, Sabaragamuwa University of Sri Lanka.
  +94711106393
  slekamge@foc.sab.ac.lk

Prof. B.T.G.S.Kumara

- Senior Lecturer, Faculty of Computing, Sabaragamuwa University of Sri Lanka.
  +94714431192
  kumara@foc.sab.ac.lk