Pinil Dissanayaka

Intern - Machine Learning Engineer

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Summary

Motivated and accomplished aspiring Machine Learning Engineer with hands-on experience in developing and deploying machine learning models for tasks such as predictive analytics, text classification, and computer vision. Proficient in Python, TensorFlow, PyTorch, and scikit-learn, with additional expertise in frameworks like Flask and FastAPI. Skilled in designing end-to-end machine learning solutions and integrating modern tools like LangChain and Transformers for robust applications. Experienced in leveraging AWS services such as EC2, Lambda, and S3 for scalable and efficient deployment of machine learning workflows. Eager to contribute to innovative AI-driven projects, leveraging strong problem-solving abilities, analytical thinking, and collaborative skills to deliver 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

Courses and Certifications

- Google Data Analytics Professional Certificate - **Coursera**
- Mathematics for Machine Learning & Data Science - **SpecializationDeepLearning.AI**
- SQL for Data Science - **UCDAVIS**
- Python for Deep Learning and Artificial Intelligence - **Udemy**
- TensorFlow - **Keras Bootcamp - OpenCV University**
- IBM Data Science Professional Certificate - **Coursera**

Technologies

Languages: Python, R, Java, C, C++, JavaScript, PHP
Databases: MySQL, Microsoft SQL Server, PostgreSQL, MongoDB, Neo4j
Libraries: Numpy, Pandas, SciPy, Statsmodels, Matplotlib, Seaborn, Plotly, NLTK, Scikit-learn, OpenCV, MLflow, Transformers
Frameworks: TensorFlow, Keras, PyTorch, LangChain, LangGraph, CrewAI, LlamaIndex, Flask, FastAPI, Laravel
Tools & Technologies: GitHub, Git, Docker, Power BI, AWS(EC2, Lambda, S3, Amazon RDS), Apache Airflow

Achievements

- **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.
- **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 – present
MultiFetch-AI

- Processed diverse document formats, including text, tables, and images, using the Unstructured.io framework, achieving 95% accuracy in comprehensive data extraction.
- Designed and implemented a querying system to retrieve relevant information across multiple formats, reducing query response time by 30%.
- Utilized Python, LangChain, LangGraph, and Flask to develop the solution, enhancing the efficiency and performance of the system.

Election Insight App — Aug 2024 – Sep 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 an overall system accuracy of 92% in identifying factual inconsistencies and providing actionable insights for users.
- Implemented the app with Python, LangChain, LangGraph, Unstructured, and Transformers, ensuring robust and reliable performance in real-time applications.

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

- Designed and developed a system leveraging image processing and convolutional neural networks (CNNs) to classify over 10 paddy crop diseases with an accuracy of 98%.
- Leveraged 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.
- Utilized 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 Short-Term Memory (LSTM) models, achieving 98% accuracy 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 real-time, context-specific treatment solutions for predicted diseases.
- Employed ReactJS, Python, FastAPI, TensorFlow, Keras, OpenCV, LangChain, and scikit-learn.

References

DR. L.S Lekamge

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