

# Pinil Dissanayaka

## Machine Learning Engineer

📍 Colombo, Sri Lanka    ✉ pinildissanayaka@gmail.com    ☎ +94786450938  
🔗 <https://pinildissanayaka.github.io/pinil/>    in pinil dissanayaka    🌐 pinilDissanayaka

### Summary

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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

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<b>Bachelors of Science (Hons) Computing and Information Systems</b>	June 2022 – present
<ul style="list-style-type: none"><li>Sabaragamuwa University of Sri Lanka   Belihuloya</li><li>GPA: 3.47/4.0</li></ul>	
<b>G.C.E Advanced Level</b>	Feb 2009 – Sep 2020
<ul style="list-style-type: none"><li>President's College   Sri Jayawardhanapura - Kotte</li></ul>	

### Work Experience

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<b>Machine Learning Engineer</b>   CodeGen International (Pvt) Ltd	Feb 2025 – present
<ul style="list-style-type: none"><li>Worked on the ABSOLX Core AI, leveraging Stable Diffusion for image generation and AI agent optimization.</li><li>Collaborated with teams to integrate scalable AI models into production systems.</li><li>Conducted ongoing research to integrate the latest AI advancements, optimizing model accuracy.</li></ul>	

### Skills

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**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

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- **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

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**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

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**Dr. L.S Lekamge**

- Head of Department, Faculty of Computing, Department of Computing and Information Systems, Sabaragamuwa University of Sri Lanka.  
[☎ +94711106393](tel:+94711106393)  
[✉ slekamge@foc.sab.ac.lk](mailto:slekamge@foc.sab.ac.lk)

**Prof. B.T.G.S.Kumara**

- Senior Lecturer, Faculty of Computing, Sabaragamuwa University of Sri Lanka.  
[☎ +94714431192](tel:+94714431192)  
[✉ kumara@foc.sab.ac.lk](mailto:kumara@foc.sab.ac.lk)