## Contacts


chamiduudara321@gmail.com

2021e049@eng.jfn.ac.lk

Kuliyapitiya, Sri Lanka

+94761720686

Portfolio

LinkedIn

GitHub


## Skills

- **Programming Languages:** Python, Java, C++
- **ML & Deep Learning:** Scikit-learn, Keras, TensorFlow, PyTorch, CNNs
- **Generative AI & NLP:** LangChain, GPT models, RAG architecture, Prompt Engineering
- **Large Language Models**
- **Agentic AI:** Autonomous Agents, LangGraph, n8n
- **Web & API Development:** FastAPI, Streamlit
- **Data Analysis & Visualization:** NumPy, Pandas, Matplotlib
- **Databases:** MySQL, MongoDB
- **Vector Databases:** FAISS, Pinecone, ChromaDB
- **Web Development:** HTML, CSS, JavaScript, React
- **Tools & Platforms:** GitHub, Google Colab, Hugging Face
- **Simulation & Modeling:** MATLAB, Simulink
- **Soft Skills:** Problem solving, Critical thinking, Fast learner, Team collaboration, Time management, Leadership, Creativity, Continuous learning

# UDARA HERATH

## AI/ML ENGINEER (Internship)

## About Me

Aspiring AI Engineer and BSc Computer Engineering undergraduate (final year) with a strong focus on Machine Learning, Deep Learning, Generative AI, and Agentic AI systems. Passionate about building intelligent systems that combine vision and language models, with hands on experience in multi modal AI, LLM integration and chatbot development. Skilled in Python, TensorFlow, PyTorch and familiar with tools like FastAPI, LangChain, langgraph and n8n for deploying practical AI applications. Actively involved in projects ranging in AI powered study tools, showcasing a commitment to innovation and real world impact.

## Education

B.Sc. (Hons) Computer Engineering (2022 – 2026)

University of Jaffna

## Projects

**Medical Chatbot**

Developed a medical AI chatbot using FastAPI and Groq's vision language models to analyze medical images and patient symptoms, providing intelligent diagnostic insights through a web interface.

**RAG Based PDF Chatbot**

Built a web based AI assistant that allows users to upload PDF documents and interact with them via natural language queries. Integrated Streamlit, LangChain, FAISS, HuggingFace embeddings and Groq's LLaMA 3 to enable semantic search and accurate Q&A over document content.

**Eye Disease Classification With Integrated Chatbot** - Research Project (ongoing)

Developing an AI based diagnostic system that classifies eye diseases specifically Glaucoma, Diabetic Retinopathy, Cataract and Normal using OCT images and patient reported symptoms. Combined a Vision Transformer (ViT) for image analysis with a Large Language Model (LLM) for natural language.

**N8N AI Assistant**

This AI Assistant can manage my emails, calendar events and it can be work as a chatbot also. It is used as a telegram bot. For this OpenAI API, Email API and Google calendar API also provided. This project can be developed more in the future.

## Certifications

- Ai Agents Fundamentals -Hugging Face
- Ai Agents Completion- Hugging Face (ongoing)
- AI/ML Engineer Stage 1 - SLIIT
- AI/ML Engineer Stage 2 - SLIIT
- Python for Beginners - UOM
- Python Programming (2) - UOM (ongoing)
- Web Design for Beginners - UOM
- Introduction to AI - Simplilearn
- MoraXtreme - Coding Competition
- ALGOXPLORE – Coding Competition
- SPIRITX - Web Development Competition

## Interests

- Generative AI
- Agentic AI
- Machine Learning
- Deep Learning
- Web development
- Electronics
- Database Management
- Computer Vision
- Natural Language Processing
- Multi modal Ai
- Model deployment
- LLms

## Languages

- English
- Sinhala

**Bitcoin Price Predictor**

Developed a Bitcoin price prediction system using an LSTM based deep learning model trained on historical price data.

**Laptop Price Predictor**

Developed a machine learning model to predict laptop prices based on user selected specifications such as Laptop brand, CPU, GPU, OS and more. Integrated the model into a user friendly Flask based web application.

**Student Attendance Management Project**

A role based web application developed using PHP and MySQL to attendance tracking for university students. The system includes separate interfaces for Admin, Lecturer and Student roles, enabling user registration, lecture scheduling, attendance marking and real time access to records.

**Smart Railway Gate Control System with GPS Tracking**

Developed an embedded safety system using ESP32, GPS and servo motors to automate railway gate control. Integrated real time tracking, mobile alerts and emergency override features. (Group Project)

## Future Plans

I am passionate about continuously enhancing my skills and exploring emerging technologies. My upcoming goals include,

- Building an AI assistants using LangGraph and autonomous agent frameworks to streamline daily tasks and workflows.
- Studying Docker and AWS for containerization and deployment of machine learning and full stack AI applications.
- Studying Large Language Model fine tuning to adapt models for specific tasks and domains.
- Exploring MLOps to automate and manage the full machine learning lifecycle, including versioning, CI/CD and monitoring

## References

**Dr. (Mrs.) J. Jananie**
B.Sc (Hons) in Computer Science (Jaffna), PhD(University of Louisiana)
Senior Lecturer Grade II
Department of Computer Engineering
jananie@eng.jfn.ac.lk
+94-21-206-0161

**Eng. Y. Pirunthapan**
B.Sc.Eng(Hons)(Jaffna)
Lecturer (Probationary)
0751860388
Department of Computer Engineering
pirunthapany@eng.jfn.ac.lk
+94-21-228-2211