

# LEWWANDI VITHANAGE

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44, Avarihena Rd, Colombo 5, Sri Lanka

## OBJECTIVE

Seeking a challenging position in Artificial Intelligence to leverage my expertise in machine learning, deep learning, and computer vision. Aiming to contribute to innovative projects at the intersection of cutting-edge AI research and practical problem-solving in fields such as computer vision, natural language processing, and predictive modeling.

## EXPERIENCE

### - Zindhu Business Solutions (Pvt) Ltd

Apr 2024- Present

*Associate Software Engineer*

- Implemented container orchestration for backend services using AWS EKS and Docker for microservices deployment
- Developed a real-time vehicle tracking system for Starmarket mobile app using React.js frontend and Node.js backend, implementing RESTful APIs for live location sharing and tracking
- Built a data analytics web application to visualize monthly vessel monitoring system package activation data

### - Zindhu Business Solutions (Pvt) Ltd

Oct 2024- March 2025

*Intern Trainee*

- Developed APIs for individual services using Node.js and validated their functionality through comprehensive testing with Postman
- Developed and debugged a full-stack E-commerce platform using Node.js backend and React.js responsive frontend
- Configured AWS S3 bucket management and IAM user roles/permissions for EKS

## EDUCATION

### - General Sir John Kotelawala Defense University-Ratmalana

Jan 2022-Dec 2025

Bsc (Hons) in Electronics and Telecommunication Engineering

### - Sirimavo Bandaranaike Vidyalaya-Colombo 7

2012-2020

GCE Advanced Level- Physical Science Stream

Combined Maths(B), Physics(C), Chemistry(C)

## PROJECTS

### - Multi-Person Textured 3D Mesh Reconstruction: Ongoing Research Present

Present

Tools: PyTorch, OpenCV, Deep Learning Frameworks

- Developing end to end pipeline using deep neural networks to reconstruct textured 3D human meshes from single RGB image
- Implementing multi-person pose estimation and texture mapping using state-of-the-art computer vision techniques

May 2025

### • Sentiment Analysis Web Application

Tools: NLTK, Python, Flask, Scikit-learn, Random Forest, Linear Regression

- Developed a full-stack sentiment classification web application using scikit-learn, TF-IDF vectorization, Flask API to analyze user comments with real time predictions
- Trained and optimized multiple classification models on Hugging Face dataset with feature engineering pipeline including chi-squared feature selection & cross validation

Jan 2025

### • Heart Disease Prediction Web Application

Tools: Python, Pandas, Flask, JSON Web Tokens

- Developed a full-stack web application using MERN Stack, Flask API to predict an individual's risk of heart disease by analyzing 11 clinical parameters
- Implemented token-based authentication for secure login and sign-up

- **Voice Assisted AI chatbot on Raspberry Pi: Embedded AI System**  
Tools: Python, Whisper, Google Gemini API, pyttsx3, Raspberry Pi

- Developed a voice controlled chatbot integrating speech recognition (Whisper) and Gemini LLM on resource-constrained Raspberry Pi hardware
  - Implemented real time speech-to-text processing and text-to-speech response system with natural conversation flow
- Dec 2023-Feb 2024

SKILLS

- **Programming Languages:** Python, JavaScript, C/C++, Bash
- **Web Technologies:** React.js, Node.js, Express.js
- **Database Systems:** MongoDB
- **Deep Learning & Machine Learning:** PyTorch, TensorFlow, Scikit-learn, OpenCV
- **Cloud Technologies:** AWS
- **Tools & Platforms:** Git, Linux, Raspberry Pi
- **Core Competencies:** Computer Vision, Supervised Learning, Web Developing

LEADERSHIP EXPERIENCE

•Marketing Director Electronic, Robotics & Innovation Club-KDU	2023-2024
•YPSL Representative Institution of Engineering & Technology (IET)-KDU	2024-2025
•Program Team Member IEEE Communications Society-KDU	2023-2024
•Education Team Member Toastmasters Club-KDU	2022-2023

ADDITIONAL INFORMATION

Languages: English, Sinhala (Native)

REFERENCES

1. Eng (Mrs.) PN Karunanayake  
Senior Lecturer (Gr II)  
Department of Electrical, Electronic and Telecommunication Engineering  
General Sir John Kotelawala Defence University  
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2. Pradeep Indrajith  
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