



# Pahirathan Nithilan

AI/ML Engineer

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🔗 Nithilan

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📍 Colombo

## 📄 PROFILE

AI/ML Engineer skilled in developing and deploying scalable AI applications across Machine Learning, Deep Learning, Generative AI, LLM, Computer Vision, and NLP. Passionate about applying data-driven methods to solve real-world problems and committed to continuous learning and innovation. Enthusiastic about AI and data science.

## 🏢 PROFESSIONAL EXPERIENCE

### M Data Zone SA Pvt (Ltd)

Junior AI/ML Engineer

07/2025 – present

### AI/ML Engineer (Intern)

M Data Zone SA Pvt (Ltd)

01/2025 – 07/2025

I am working on **MedirAI**, an AI project for early skin cancer detection, contributing to the development and deployment of 8+ AI models and 3+ production deployments. Key contributions include:

- **AI Model Development:** Developed and optimized 8+ AI models, ensuring high performance and scalability.
- **Model Testing:** Conducted model testing using test cases to validate model performance and accuracy.
- **FastAPI for API Development:** Built efficient REST APIs using FastAPI to integrate AI models and support seamless communication with other systems.
- **Model Hosting & Deployment:** Deployed models using Azure services, ensuring smooth integration with production environments.
- **PostgreSQL Database Integration:** Managed and optimized data storage and retrieval using PostgreSQL for handling structured datasets.
- **Model Evaluation:** Conducted thorough evaluations and fine-tuning of models to achieve high accuracy.
- **Dataset Management:** Uploaded and organized datasets into Azure Containers for scalable and secure storage.
- **CLI Development:** Developed command-line interfaces (CLI) for easy access and interaction with models and services.
- **iOS App Development:** Contributed to the development and integration of AI models in an iOS app.
- **Web Scraping AI Bot:** Built and deployed a web scraping AI bot to collect relevant data for model training and real-time insights.

## 🎓 EDUCATION

### Bachelor of Business Science

University of Moratuwa ☑

2021 – 2025

### Full-Stack Web Development Diploma (FSWD)

Uki Coding School ☑

2019 – 2020

## 🧠 SKILLS

### Technical Skills

- **Programming & Development:** Python, FastAPI, Flask, REST API Development, CLI Development, Swift (iOS - Basic)
- **AI/ML & Deep Learning:** TensorFlow, PyTorch, Keras, Scikit-learn, XGBoost, CNN, RNN, LSTM, GANs, Transformers
- **Generative AI & LLMs:** GPT, BERT, T5, Hugging Face Transformers, Stable Diffusion, DALL-E, LangChain, LlamaIndex, RAG Pipelines, AI Agent Design (ReAct, Plan-and-Execute)
- **Computer Vision:** OpenCV, YOLO, Mask R-CNN, VGG, Image Classification, Object Detection
- **Natural Language Processing (NLP):** SpaCy, NLTK, TextBlob, Named Entity Recognition (NER), Sentiment Analysis, Text Generation
- **Cloud & MLOps:** Microsoft Azure (Blob Storage, Container Registry, VMs), GCP (Google Cloud Platform) Docker, Podman, CI/CD (Basic), Model Deployment & Serving, PostgreSQL, MongoDB, FAISS
- **Data Analysis & Visualization:** Pandas, NumPy, Matplotlib, Seaborn, Power BI, Tableau

### Soft Skills

- Teamwork and Collaboration
- Effective Communication
- Problem-solving and Critical Thinking
- Adaptability
- Time Management
- Continuous Learning Mindset

## 🌐 LANGUAGES

Tamil - Native

English - Professional Working Proficiency

- CI/CD Pipeline: Contributed to the design and maintenance of the CI/CD pipeline for streamlined development and deployment processes.
- Mobile App Integration: Integrated AI models, OCR, OpenCV, and computer vision models into mobile applications.

### **Maching Learning Engineer (Intern)**

EPR GROUPERS

08/2024 – 01/2025

As an intern, I built machine learning pipelines for image classification, object detection, and pipe leakage detection using computer vision, and supported a retail analytics project by cleaning and analyzing business data, creating dashboards, and participating in client sessions.

### **Co-Founder**

Workwith.lk

06/2025 – present

Currently developing an AI-powered platform that connects businesses with skilled professionals to deliver efficient and reliable workforce solutions.

## PROJECTS

### **My Portfolio Projects**

I develop projects across Machine Learning, Deep Learning, NLP, Large Language Models, Generative AI, Computer Vision, and additional areas. See my portfolio [🔗](#) and GitHub [🔗](#) for details.

## EXTRACURRICULAR ACTIVITIES

### **Clubs**

- Member of AIESEC University of Moratuwa
- Member of Hiking Club University of Moratuwa
- Member of BPM Club University of Moratuwa
- Member of Yarl IT Hub Jaffna
- Member of AI Community Sri Lanka

## REFERENCES

**Dr. Amali Wijekoon**, *Senior Lecturer*,  
Faculty of Business - University of Moratuwa  
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