



Thimira Nirmal

MACHINE LEARNING ENGINEER

WORK EXPERIENCE

LONDON STOCK EXCHANGE GROUP (LSEG)

Intern, Engineering

Feb 2023 – Dec 2023

- Worked on FX Surv team for 5 months then moved to Machine Learning Team
- Data Management
- LLM Integrations
- Prototyping and UI
- Process Automation
- Project Planning and Architecting

FREELANCING

- 2+ years experience in projects & research

CORE SKILLS

Languages

- Python
- C++

Frameworks

- Tensorflow/Keras
- PyTorch

Technologies

- OpenAI
- OpenCV
- Huggingface

Full Stack Developer

- Front End
 - Next.js / TypeScript
- Back End
 - FastAPI - Python

Public Cloud

- Azure
- AWS (Sagemaker)
- Vercel
- Heroku
- GCP

Database

- Supabase (PSQL)
- MongoDB
- Pinecone

ACADEMIC PROFILE

B.SC ENGINEERING (HONS)

University of Sri Jayewardenepura

December 2019 – Present

Minor in Data Management

EDUCATIONAL QUALIFICATION

- AZ-900: MICROSOFT AZURE FUNDAMENTALS
- 365 DATA SCIENCE - BUSINESS ANALYST/ DATA ANALYST/ DATA SCIENTISTS
- Introduction to Cybersecurity

CONTACT DETAILS

- ☎ Mobile: +94712280951
- ✉ timnirmal@gmail.com
- 🌐 [linkedin.com/in/thimiranirmal](https://www.linkedin.com/in/thimiranirmal)
- 🐙 github.com/timnirmal
- 🌐 timnirmal.com

PERSONAL SUMMARY

Results-oriented Machine Learning Engineer with 3+ years of experience, I merge innovative machine learning solutions with client and team needs for impactful results. Committed to excellence, balancing expectations with creative research and POCs, aiming to enhance team success. As a quick learner, I excel both solo and in teams, eager to tackle new challenges and advance with cutting-edge tech.

SECONDARY EDUCATION

Taxila Central Collage, Horana
(2009-2018)

Taxila Primary School, Horana
(2005-2009)

EXTRA CURRICULAR

Speaking Engagements

Keras Community Day Sri Lanka
2023

Dived deep on the topic "Hello World" to the Machine Learning with Keras

Computer Engineering Society FOR USJ

Social Media Management

Japura Flames

Social Media Management and
Graphic Design

COMPETITIONS

Veracity OpenAI Hackathon

In top 7 semi finalists and
competing for finalists.

Open Hack Day Sri Lanka

1st place at contributing to open
source projects in Hacktoberfest

Code Squad 2.0

Top 10 finalists

IEEEExtreme

Participated in 2 years

REFERENCES

Mr. Keshan Sodimana

Associate Architect, Machine
Learning

LSEG Technology

01 Millennium Drive, Malabe

Contact Number: (+94) 767979776

Email: keshan88@gmail.com

Dr. Udaya Wijenayake

Department Head & Senior Lecturer

Department of Computer

Engineering

Faculty of Engineering

University of Sri Jaywardenepura

Contact Number: (+94) 764655928

Email: udayaw@sjp.ac.lk

PROJECTS

MULTIMODAL HATE SPEECH AND SENTIMENT DETECTION

This Project utilize the audio and video from Youtube videos and extract hate, sentiment, and severity of the context involving extreme level of Sinhala language processing and machine learning.

- Python, Keras, OpenCV, Pydub, GCloud, scipy, pandas

CUSTOMER SATISFACTION PREDICTION

A predictive model for customer satisfaction on an eCommerce platform using machine learning and sentiment analysis on over 100k orders, enhancing product recommendations and inventory decisions with advanced feature engineering and NLP techniques.

- streamlit, plotly, pandas, scikit-learn, matplotlib, gensim, keras, transformers

INTELLIGENT KNOWLEDGE MANAGEMENT SYSTEM

A project taken part to create a system for Advanced Enterprise Knowledge Management. The system can take in, understand, and find information from a huge database of documents and URLs, providing accurate and deep insights about them with the power of Advanced LLM methods.

- Nextjs, Fatapi, OpenAI, Huggingface, supabase, pinecone, airbyte

INTROUSION DETECTION SYSTEM

This system has capability to monitor ongoing and outgoing traffic from the system and detect anomalies in realtime and indicate them.

- FastAPI, Stramlit, CICFlowmeter, Pandas, Keras

AI E-COMMERCE System

This E-Commerce system has a Customer End (Ecommerce Site) and a Shop End (Admin End) and Python Backend. Machine learning is used for Product Recommendation System, Chatbot and Customer Segmentation. Data Processing, Chat, Image, Report Generation are done with python and FastAPI as Backend.

- Next.js, Supabase, Tensorflow, FastAPI

RESEARCH

Unveiling Potential of Convolutional Autoencoders

Optimize CAE architectures by doing various experiments for different type of domains and see the capability of using CAE for other high dimensional areas. Various models and explainable AI are use for implementations and evaluating the models.

- Keras, Saliency map, GradCam, Pytorch