# (Thomas) Hein Thura

## **Machine learning Engineer and Data Scientist**

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Thomas Hein Thura.com(personal website)

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## Summary

Google-certified TensorFlow developer, machine learning and Linux enthusiast with a strong background in the medical field, and 1.5 years of working experience as a Freelance Machine Learning and Data Scientist.

#### **EXPERIENCE PROJECTS**

## Freelance Data scientist and Machine Learning Engineer

#### **November 2021- Present**

**Location - Myanmar** 

Successfully solved industry-complex data storage, data modeling, and machine learning problems using machine learning and deep learning techniques.

- Developed an 80% accuracy fraud detection classification model for local bank sectors, optimizing accuracy, reducing false positives, and addressing data engineering workload.
- Implemented an automatic ETL pipeline that lead to reducing the data engineering workload by 10% and ensure monitoring of real-time data drift, data qualities and model performance.
- Built a Text Summarization website as a personal hobby project, leveraging natural language processing techniques and testing with state-of-the-art models.
- Utilized oversampling and undersampling techniques to address imbalanced datasets, searching for noise patterns, improving model generalisation by 30%, and achieving 99% accuracy.
- Developed models for weather temperature detection and energy price detection using time series analysis.



#### **Achievement**

Google TensorFlow Developer Certificate (@link)

#### **Skills**

- Scikit Learn
- TensorFlow
- Pandas

• MLFlow

Docker

Seaborn

- NumPy SQLite
- PostgreSQL
- Matplotlib
- GitHub/ Git
- C++
- Prefect orion
- EvidentlyAI
- AWS • Linux
- Python
- VIm

### Languages

- English Business Level proficiency
- Myanmar Native

#### Education

Final year medical student studied at the University of Medicine 2, Yangon, Myanmar.

#### **PROJECTS**

#### ETL pipeline projects

March 2023 - present

 Deploying Machine learning models on the website using Streamlit to handle frontend, MLflow models data tracking, EvidentlyAI to find data drift and using SQLite and PostgreSQL to store dataset and models, and Prefect orion to orchestrate the whole pipeline.

## **Singular Website Projects**

May 2023 - present

- Deploying a personal website using streamlit on AWS EC2.
- Merging custom Stable Diffusion, text summarization, digital CV, and personal website into one giant website.

## **Kaggle Competition projects and articles** March 2023 - June 2023

- Summit 12 deep learning models and 3 machine learning models in competition, resulting rank top 70%.
- Found out methods to reduce data noise upon a million samples and advanced deep learning models to find the solution.
- Write an article for beginner novice kaggler for sharing experience and knowledge

#### Text Summarization website NLP LLM Projects March 2023- May 2023

- Build **Text Summarization websit**e as personal hobby project.
- Testing Personal AI website with alpaca Lora 7B model and meta opt 13B model from hugging face

#### **Proof of Concept projects**

January 2023 - March 2023

- Oversampling and Undersampling on imbalanced datasets (insurance premium pay dataset, credit card fraud dataset).
- Oversampling and undersampling solve the imbalanced dataset problem, which is the poor performance of classifiers on minor classes. And improve 30% of model generalization on the dataset.
- Got 99% accuracy and no FN(false negative) in oversampling with SMOTE testing on Stacking, and ANN models.'

#### **TensorFlow Projects**

November 2021 - January 2023

- **CNN** projects cifar10 classification, sign language classification, GI tract X-ray segmentation.
- NLP projects IMDb film rating classifications, Reuters documents with articles classification, sarcasm tweets detection, disaster tweet classification, BBC articles classification,
- **Time series** projects Weather Temperature detection, Energy price detection.

#### Soft skills

- communication
- organisation skills
- problem-solving
- time management
- Strong leadership
- task prioritisation skills.
- Generalize real-time problems

#### **CURRENT PROJECTS**

- Personal website
- ETL website
- Projects on UW-Madison GI Tract Image Segmentation,
- Brain tumour detection