Phan Dinh Long (Ethan Phan)

AI Researcher/Data Scientist

Email: **longfet53@gmail.com**
Phone Number: **+659-049-0193**
Blog: **ethanphan.github.io/datascienceblog**

About Me

Hi, my name's Ethan and I'm an AI Researcher/Data scientist. I have 8 years of working experience in AI/data science, car infotainment system and SDH networking.

I am most skilled in: Deep Learning, `Tensorflow`, `Transformers`, `Graph Convolutional Neural Network`, Python and Keras.

Personal Projects

Proximal-Gradient Algorithm for Distributed Learning

One of my former colleagues asked me to help him implement a new optimizer for his PHD project. So I took it as a chance to implement a `custom optimizer` in tensorflow as I had never really payed attention to building one before. Working on this project, I also learned the concept of `Federated Learning`.

Time Series Analysis for Traffic Prediction

This project is the result of Grab AI for S.E.A. challenge in 2019 which got me in to the `top 50 over 1200` contestants. Eventhough I used a `Wavenet` for time series prediction, I also learned a lot about time series analysis skills such as differencing, de-seasoning, de-trending, or AR, MA, and `ARIMA` model.

Music Classification

This project is for Zalo AI challenge in 2018 of which I became the `first runner up`. Mp3 files are first converted into spectrogram images, then a CNN model is employed to classify the genre of the song.

Face Recognition

This is teaching material I prepared for a AI training course of RubikAI where I taught about Tensorflow. This used `facenet` model in `transfer learning` fashion.

Experience

Handshakes by DC Frontiers

handshakes.com.sg
Technology Analyst
Oct 2019 - Present

Built a scalable model for news classification system. With a customized self-attention layer that was designed for this specific use case, this model achieves impressive accuracy with high flexibility and scalability. It is currently running in production and is serving hundreds of classifiers. More classisfiers can be added without retraining the whole model and without putting more load on the server.

Implemented an active-learning algorithm that helps speed up data labelling time by few hundred percent.

Developed a news recommendation model that leverages BERT to recommend relevant news based on user's history.

Implemented a meta-learning algorithm for few-shot text classification.

- NLP, Bert, Transformer, self-attention.

- Few-shot learning, Meta-learning, active learning.

- Named Entity Recognition, Named Entity Disambiguation.

- Tensorflow, Pytorch, Onnx.

Cinnamon AI

cinnamon.is
AI Researcher
Feb 2018 - Sep 2019

Revolutionalized the way Cinnamon extracts information of interest from administrative documents by applying Graph Convolutional Neural Network. Before that, Cinamon developers had to spend a lot of time writing rules for the heuristic approaches.

- Graph Neural Network, Node Classification, Link Prediction, Graph Embedding.

- Optical Character Recognition, Semantic Segmentation.

- Model Calibration.

HUMAX Vietnam R&D Center

Embedded Software Developer
Oct 2015 - Feb 2018

Car infotainment's applications development.

- C/C++, Qt, realtime OS.

Viettel Network

Tranmission Engineer
Nov 2013 - Oct 2015

Operated and maintained the SDH backbone network of the telecommunications giant Viettel. Rerouted the traffic and performed load balancing while coordinates technician in order to fix it if an incident happens.

Education

Coursera & deeplearning.ai
Deep Learning Specialization
2017 - 2018

- Neural Networks and Deep Learning (certificate).
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization (certificate).
- Structuring Machine Learning Projects (certificate).
- Convolutional Neural Networks (certificate).
- Sequence Models (certificate).
- Introduction to Statistical Learning.

Hanoi University of Science and Technology
Engineer's Degree of Electronics and Computer Engineering
2008 - 2013

Hanoi University of Science and Technology (HUST; French: Institut polytechnique de Hanoï), founded 1956, is the first and largest technical university in Vietnam.

I spent a lot of my time there as a member of the *Embedded Systems and Reconfigurable Computing Lab* working on FPGAs and SoCs. I also took the role of *Research Assistant* for my professor Dr. Pham Ngoc Nam.

A Little More About Me

Alongside my interests in computing, AI and data science, some of my other interests and hobbies are:

- Traveling
- Hiking
- Climbing
- Skipping Rope

Ethan Phan - longfet53@gmail.com - References on request