### Dinh Long (Ethan)

Al Researcher/Data Scientist



Blog: ethanphan.github.io/datascienceblog



#### About Me



Hi, my name's Ethan and I'm an Al Researcher/Data scientist. I have 6 years of working experience in Al/data science, car infotainment system and SDH networking.

I am most skilled in: Deep Learning, Tensorflow, 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 (7)

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 (7)

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

#### Experience

#### **Cinnamon Al**

cinnamon.is **Al Researcher** 

Feb 2018 - Present

Revolutionalized the way Cinnamon extracts information of interest from administrative documents by applying Graph Convolutional Neural Network. Before that, we had to spend countless days writing rules eventhough we knew it could not scale up.

- 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 computing, Al and data science some of my other interests and hobbies are:

- Traveling
- Hiking
- Skipping Rope