# **HUY NGO**

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#### **EDUCATION**

• Undergraduate student, Computer Science, Posts and Telecommunications Institute of Technology (PTIT), 2017 - present

### **PUBLICATIONS**

Ngo Quang Huy, Tu Minh Phuong, and Ngo Xuan Bach. Autoencoding Language Model Based Ensemble Learning for Commonsense Validation and Explanation. (in the peer-review process of PACLIC 2021)

#### **EXPERIENCE**

#### **Electronics Research Lab**

Intern Sep 2018 - Jan 2019

- Read, reported different methods/papers of Machine Learning, Optimization
- Implemented some Clustering methods on some popular public datasets
- Implemented Transfer Learning for image classification
- Learned basic knowledge of Machine Learning

#### PTIT NLP group

Research Assistant (Director: Associate Prof. Ngo Xuan Bach, homepage)

Aug 2020 - present

- Built models for Sequence Labeling tasks
- Built models for Text Classification task
- Proposed an ensemble method based on Autoencoding Language Model for the Commonsense Validation and Explanation task (outperformed the state-of-the-art result)
- Doing research on Community Question Answering

#### **Aimesoft JSC**

Intern Research Engineer

Jan 2021 - present

- Built T5 model for Japanese Text Summarization
- Implemented various methods for Japanese Text Summarization
- Doing research on a project that is related to Legal Text Processing

## **TECHNICAL SKILLS**

- AI: Natural Language Processing, Deep Learning, Machine Learning
- Deep Learning frameworks/tools/libraries: Python, Numpy, Pandas, PyTorch, Trax, Tensorflow2/Keras, Scikit-learn

# **CERTIFICATIONS**

## Deep Learning Specialization - DeepLearning.AI

Nov 2018 - present

Credential: <u>Link</u>

#### Natural Language Processing Specialization - DeepLearning.Al

Aug 2020 - present

• Credential: Link

## Natural Language Processing in Tensorflow - DeepLearning.Al

Jul 2020 - present

• Credential: Link

### **ACTIVITIES AND AWARDS**

- ACM/ICPC PTIT 2018, Hanoi, Apr 2018
- ACM/ICPC PTIT 2019, Hanoi, Apr 2019
- High school English Excellent Student Competition, Nam Dinh, 2016

# **PROJECTS**

Personal

## **BiLSTM-CRF for POS Tagging**

Oct 2020

- Github: https://github.com/ngoquanghuy99/POS-Tagging-BiLSTM-CRF
- Trained a model for a POS tagger that tries to mark up a word in a text as corresponding to a specific part-of-speech
- Implemented the BiLSTM-CRF model from the paper Bidirectional LSTM-CRF Models for Sequence Tagging
- The model reached 98.93% accuracy on word level on the Penn Treebank corpus (a benchmark corpus for English POS tagging, approximately 1 million tokens)
- Solution stack: Tensorflow 2/Keras

## **Transformer for Abstractive Text Summarization**

Dec 2020

- Github: https://github.com/ngoquanghuy99/transformer-summarization
- Trained a model that summarizes text from an given article
- Implemented GPT-2 from the paper Language Models are Unsupervised Multitask Learners and the Transformer from the paper Attention Is All You Need
- Solution stack: Trax, JAX

BERT for social media text Nov 2020

- Github: https://github.com/ngoquanghuy99/BERT-social-media-text
- Fine-tuned BERT-large model on a benchmark social media corpus (TweetNLP) for POS tagging task
- The model reached 84.13% accuracy on word level
- Solution stack: PyTorch

Nevermore Nov 2020

- Github: https://github.com/ngoquanghuy99/nevermore
- Built an NLP application to analyze texts from users (using Flask)
- Included some tasks: POS tagging, NER, Summarization, Sentiment analysis, Text Classification
- Solution stack: Flask

Opensource projects

Vietnamese NLP Progress Nov 2020

• Github: https://github.com/undertheseanlp/NLP-Vietnamese-progress

# **OTHER SKILLS**

Languages English: professional proficiency. Vietnamese: native.