



Binh Le Do Thanh
Machine Learning Engineer

+84824225665

binhnd234@gmail.com

github.com/binh234

binh234.github.io

linkedin.com/in/binh234

Thu Duc, Ho Chi Minh City,
Viet Nam



Summary

Recent graduate with a Bachelor's degree in Computer Science and a strong interest in artificial intelligence. Skilled in Python, TensorFlow, and PyTorch. Passionate about leveraging AI to solve complex problems and improve user experiences.



Education

HO CHI MINH UNIVERSITY OF TECHNOLOGY

09/2018 - 11/2022

Bachelor of Engineering, Computer Science

Program: Honors program

GPA: 8.76/10



Work Experience

SINGULARITY

6/2021 - 9/2021

AI Intern / Ho Chi Minh City, Viet Nam

Technologies: Python, Tensorflow, Pytorch, Docker, Spring Framework

- Learned how to use Docker and Kubernetes in the development process
- Conducted experiments in Natural Language Processing and Speech Processing
- Assisted in the development of a number recognition system that achieved an 85% accuracy rate



Personal Projects

VIETNAMESE AUTOMATIC SPEECH RECOGNITION

09/2021 - 05/2022

Developer / Team size: 2

Source: <https://github.com/binh234/wav2vec2-vi-asr>

Description: Develop a fast, accurate, lightweight Vietnamese speech recognition system that can recognize and transcribe spoken words into text using Wav2Vec2.0.

Technologies: Python, Transformers, Speechbrain, Wav2Vec2

- Responsibilities:**
- Collected over 600 hours of raw speech data from multiple sources
 - Improved performance by 20% with a customized tokenizer based on Vietnamese acoustic
 - Achieved 96% accuracy on the clean test set and 90% accuracy on the noise test set

AUTOMATIC CAPITALIZATION AND PUNCTUATION

01/2022 - 04/2022

Developer / Team size: 1

Source: <https://github.com/binh234/capu>

Description: The project aimed to predict the correct capitalization and punctuation of text inputs, such as speech recognition output or messages. I used Sequence Tagging approach to tackle this problem.

Technologies: Python, Transformers, NLP

- Responsibilities:**
- Preprocessed the data by removing stopwords and performing normalization, tokenization
 - Utilized pretrained BERT model for faster convergence and better accuracy
 - Achieved 90% accuracy on the Capitalization task and 80% on the Punctuation task

INVERSE TEXT NORMALIZATION

01/2022 - 03/2022

Developer / Team size: 1

Source: <https://github.com/binhnd234/nemo>

Description: Develop an inverse text normalization system to improve the accuracy of chatbot responses and speech recognition system.

Technologies: Python, NeMo, NLP

- Responsibilities:**
- Used Finite State Transducer (FST) to map normalized text to its original spoken or written form, considering contextual and linguistic factors

- Contributed to the NeMo repository and got accepted



Skills

Programming languages	Python, Go, JavaScript, ReactJS, NodeJS, Java, Kotlin, C/C++
Machine learning frameworks	TensorFlow, PyTorch, Transformers, SpeechBrain, NeMo, scikit-learn
Frameworks/Libraries	Django, Express, Fiber, Material UI 5, Bootstrap, Docker
Databases	MySQL, Firebase, MongoDB
Tools	Visual Studio Code, GitHub
Others	Data Visualization, Computer Vision, Natural Language Processing, Speech Processing



Honors & Awards

AWS Certified Cloud Practitioner Certificate	2022
43rd place in Google Landmark Retrieval 2021	2021
TOEIC Certificate with score 825, issued by IIG	2020
First prize in 2019 Mathematical Olympiad for student	2019