

Viet Quoc Nguyen

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SUMMARY

My research interest lies in vision-language models and self-supervised learning techniques, especially contrastive learning. I have experience in machine learning techniques and strong communication skills with the ability to explain complex technical concepts to non-technical.

EDUCATION

- **University of Economics Ho Chi Minh City (UEH)** Ho Chi Minh City, Vietnam
Bachelor of Data Science; GPA: 3.70/4.0 Sep 2021 - March 2025 (expected)
Relevant courses: Data Structures and Algorithms, Mathematical Statistics, Artificial Intelligence, Natural Language Processing, Data Analysis Programming, Machine Learning (4.0/4.0 in all of the above)

RESEARCH EXPERIENCE

- **Intelligent Data Analytics Lab, Research Assistant** April, 2023 - present
I work on various projects including implementing BiLSTM for stock price prediction, improving DEC for intent mining, and analyzing attention-free language model effectiveness under the supervision of [Dr. Dang N. H. Thanh](#).

HONORS AND AWARDS

- **UEH Young Researcher 2023 Award** Feb, 2023
For students with top 15% best research projects.
- **UEH Admission Scholarship** Sep, 2021
For students achieving the highest score in the National University Entrance exam.

ACADEMIC PROJECTS

- **Towards the Effectiveness of Attention-free Language Models for Sentiment Analysis**
Implement attention-free language models (TextCNN, gMLP, Hyena) and compare the results to RoBERTa model. Our main finding is that the attention-free models achieve comparable results with significantly fewer parameters compared to RoBERTa.
- **Shopee Review Sentiment Analysis ([GitHub repository](#))**
Do sentiment analysis for reviews about Shopee using models including Naive Bayes, Maximum Entropy, XGBoost and RoBERTa, achieving 96% accuracy. Deploy the RoBERTa model on HuggingFace and publish a [website](#) for users.
- **Customer Intent Mining from Service Inquiries with Improved DEC**
Developed an unsupervised intent discovery system for banking corpus using Deep Embedded Clustering (DEC) with Jensen-Shannon divergence and Sophia optimization, achieving SOTA NMI Score.
- **On Stock Price Prediction: A Deep Learning Approach using Bidirectional Long-Short Term Memory (BiLSTM) ([GitHub repository](#))**
Predict Apple's stock prices from a five years' time dataset using BiLSTM model, achieving 97% accuracy. Published as a Conference paper in ICICCT2023.

SKILLS SUMMARY

- **Languages:** Python, SQL, \LaTeX
- **Libraries:** NumPy, Pandas, Seaborn, Plotly, TensorFlow, PyTorch, ...
- **English:** IELTS Academic 8.0 (higher than 7.0 for all individual skills)

CERTIFICATIONS

- **Machine Learning Specialization ([GitHub repository](#))** Coursera, Feb, 2022
The GitHub repository achieves more than 150 stars and 100 forks.
- **Deep Learning Specialization** Coursera, Sep, 2021

PUBLICATIONS

- **Nguyen Q. Viet**, Nguyen N. Quang, Nguyen King, Dinh T. Huu, Nguyen D. Toan, Dang N.H. Thanh. An Exploratory Comparison of LSTM and BiLSTM in Stock Price Prediction. In *7th International Conference on Inventive Communication and Computational Technologies (ICICCT - 2023)*. [[Link](#)] [[Code](#)]
- Nguyen Q.K. Ha , Nguyen T.T. Huyen , Mai T.M. Uyen , **Nguyen Q. Viet**, Nguyen N. Quang, Dang N.H. Thanh. Customer Intent Mining from Service Inquiries with Improved Deep Embedded Clustering. *Under review at Journal of Uncertain Systems*.
- **Nguyen Q. Viet**, Nguyen N. Quang, Nguyen King, Dang N.H. Thanh. Performance Insights of Attention-free Language Models in Sentiment Analysis: A Case Study for E-commerce Platforms in Vietnam. In *8th International Conference on Inventive Communication and Computational Technologies (ICICCT - 2024)*

ACADEMIC ACTIVITIES

- **[AI Day 2023](#)** Hosted by VinAI
Participate in poster session, exploring topics including LLMs, Direct Preference Optimization with prestigious guests. Dec, 2023
- **[Summer School Data Science 2023](#)** Co-hosted by HCMUS and VIASM
Exploring Generative AI techniques and recent advances. August, 2023
- **[Summer school on Bayesian Statistics and Computation](#)** Co-hosted by UEH and VIASM
Exploring advanced topics in Bayesian statistics with top-notch professors. July, 2023
- **[Summer School on Large Language Model \(LLM\) and AI](#)** Hosted by HCMUS
Topics include: Transformers, VQA, LLM for Visual Question Answering, ... July, 2023

REFERENCE

- **Dr. Dang N. H. Thanh**
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