Ben Phan

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EDUCATION

 National Cheng Kung University (NCKU) *Sep 2023 – Aug 2025*
Master of Science in Computer Science
- Advisor: Prof. Jung-Hsien Chiang
- Vice President of the Vietnamese Student Association at NCKU (2024 - 2025)

 Danang University of Science & Technology *Sep 2018 – Mar 2023*
Bachelor of Engineering in Control Engineering and Automation
- Advisor: Ph.D. NGO Dinh-Thanh
- Class President (2019 - 2023)
- Vice President of the BK Maker Scientific Research Club (2021 - 2022)

RESEARCH INTERESTS

My research interests include Artificial Intelligence, Machine Learning, and Deep Learning, with applications in both Natural Language Processing and Computer Vision. I focus on optimizing Large Language Models (LLMs) and other deep learning architectures for efficient deployment on edge devices and servers, aiming to balance performance, scalability, and computational efficiency.

PUBLICATIONS AND SUBMISSIONS

MyMy at SemEval-2025 task 9: A robust knowledge-augmented data approach for reliable food hazard detection
Ben Phan, Jung-Hsien Chiang
Proceedings of the 19th International Workshop on Semantic Evaluation, an ACL Workshop, 2025
Best System at SemEval-2025 Task 9, ACL Workshop, Vienna, Austria.

CAS: enhancing implicit constrained data augmentation with semantic enrichment for biomedical relation extraction and beyond
Fang-Yi Su, Gia-Han Ngo, **Ben Phan**, Jung-Hsien Chiang
Journal of Database (Q1), 2025

Optimized biomedical entity relation extraction method with data augmentation and classification using GPT-4 and Gemini
Cong-Phuoc Phan, **Ben Phan**, Jung-Hsien Chiang
Journal of Database (Q1), 2024

Probability Model with Ensemble Learning and Data Augmentation for Named Entity Recognition (NER) and Relation Extraction (RE) Tasks
Cong-Phuoc Phan, Gia-Han Ngo, **Ben Phan**, and Jung-Hsien Chiang
Proceedings of the BioCreative VIII: Curation and Evaluation in the era of Generative Models, 2023
Ranked among the Top 3 overall in the BioCreative VIII Challenge 2023.

Deep learning framework applied for predicting anomaly of respiratory sounds
Dat Ngo, Lam Pham, Anh Nguyen, **Ben Phan**, Khoa Tran, Truong Nguyen
International Symposium on Electrical and Electronics Engineering (ISEE), 2021

EXPERIENCE

AI Researcher   *Tainan, Taiwan*
Intelligent Information Retrieval Lab (IIR Lab), CSIE, NCKU   *Sep 2023 – Aug 2025*

- Developing and refining RAG techniques for enhanced information retrieval.
- Investigating Graph-based RAG models to improve the accuracy and efficiency of retrieval.
- Exploring integration of Large Language Models with retrieval systems to enhance the quality of generated information.

AI Engineer   *Hanoi, Vietnam*
VinBigData   *Nov 2022 – Sep 2023*

- Worked on the Camera AI project, developing Face ID, Car Parking, and Uncovered Truck detection for VinFast factories and VinHome, processing data from 2,000+ cameras with GStreamer, DeepStream, TensorRT, and Triton.
- Contributed to the VinFast Smart Factory project, focusing on computer vision, model optimization (QAT, PQT), and deployment using DeepStream, GStreamer, and TensorRT to enhance AI performance in industrial automation.

Vingroup AI Engineer Trainee   *Hanoi, Vietnam*
Vingroup Big Data Institute   *Jun 2022 – Nov 2022*

- Completed courses in Linear Algebra, Probability and Statistics, Machine Learning, Computer Vision, Natural Language Processing, and AI Ethics taught by leading professors and experts.
- Developed essential soft skills, including teamwork, problem-solving, and effective communication, to complement technical expertise.

AI Engineer Internship   *Danang, Vietnam*
FTECH CO., LTD   *May 2021 – Jun 2022*

- Gained foundational knowledge of AI, deep learning, and computer vision techniques.
- Acquired hands-on experience with cloud platforms such as Azure and AWS for deploying AI models and services.

Embedded Software Internship   *Danang, Vietnam*
Software Danang Center   *May 2019 – Jun 2020*

- Developed IoT-based tracking system for real-time bus movement monitoring in Danang.
- Gained proficiency in C, C++, and Linux environments through embedded software projects.

ACHIEVEMENTS

🎓 **NCKU Distinguished International Student Scholarship**   *2023 - 2025*
   Awarded for Master's program

🎓 **Academic Excellence Scholarship (Top 5%) in UD - DUT**   *2023*
   Awarded for outstanding academic performance

🎓 **Vingroup AI Engineer Training Scholarship**   *2022*
   Selected for prestigious AI training program

🏆 **2nd Place in Subtask 1 and Subtask 2, SemEval-2025 Task 9**   *2025*
   International Workshop on Semantic Evaluation, ACL 2025

🏆 **Third Prize in USAID BUILD-IT & Dow Vietnam STEM**   *2023*

ACHIEVEMENTS (CONTINUED)

🏆 **Second Prize in Science Research** *2022*
   Awarded by UD - DUT for excellence in scientific research

🏆 **Second Prize in BK-Techshow** *2022*
   Recognized for innovation in BK-Techshow, UD - DUT

🏆 **Top 20 & Top 8 Digital Transformation** *2021*
   Siemens Vietnam SIMATIC contest for smart solutions (2021)

🏆 **Top 6 & Creativity Award in ABU Robocon** *2020*
   Asia-Pacific Robot Contest for automation solutions

🏆 **Third Prize in ViOlympic Math Competition** *2016, 2017*

🎖 **Appropriate Technology at University of Tsukuba, Japan** *2021*

🎖 **Amazon BUILD ON Hackathon in AWS ASEAN** *2021*

🎖 **Certificate of Merit in COVID-19 Community Service Project** *2020*

🎖 **Learning Express Program Singapore Polytechnic Exchange** *2019*

LANGUAGES

Vietnamese: Native

English: Advanced

Chinese: Intermediate

SKILLS

Computer Languages: Python, C++, C, Java, Bash, Linux.

Machine Learning Libraries: Pytorch, Tensorflow, Sklearn, Numpy, Triton, TensorRT, DeepStream, Gstreamer, Transformers, Langchain, LLMs, RAG.

Cloud & Tools: AWS & Azure, Docker, Git, Kubernetes.

Soft Skills: Leadership, Presentation, Teamwork, Problem-solving, Critical thinking, Design thinking.

Hobbies: Swimming, Volleyball, Running, Hiking.

REFERENCES

Prof. Jung-Hsien Chiang
Distinguished Professor, Department of Computer Science and Information Engineering, NCKU.

Ph.D. NGO Dinh-Thanh
Lecturer at The University of Danang, University of Science and Technology.