# DO, Van Quyet

Homepage: http://dovanquyet.github.io/

### **Research Interests**

The two main problems with current LLMs that I am concerned are efficient learning ability and generalized reasoning ability. Therefore, for future research, I will focus on the following areas:

- **Neuro-symbolic reasoning methods:** I intend to investigate the utilization of external resources, specifically existing knowledge graphs, in order to facilitate the identification and rectification of erroneous beliefs within language models.
- Efficient (transfer) learning: I aspire to enable LMs to learn from very little supervision, which is a hallmark of human intelligence. I am particularly interested in how to discover and effectively finetune the most critical subnetworks of LMs w.r.t to each task.

## **Education**

08/2022 - Present

M.Phil. Computer Science and Engineering

Hong Kong University of Science and Technology (HKUST)

Supervisor: Prof. Yangqiu Song

Specialization: Natural Language Processing, Commonsense Reasoning

08/2018 - 06/2022

**B.Sc.** Data Science and Pure Math (Advanced Track)

Hong Kong University of Science and Technology (HKUST)

CGA: 4.0/4.3 as of Graduation (Top 2/39)

First Class Honors with Academic Achievement Medal

## **Research Publications**

#### **Articles**

### **Conference Proceedings**

- **Q. V. Do**, T. Fang, S. Diao, Z. Wang, and Y. Song, "ConstraintChecker: A plugin for large language models to reason on commonsense knowledge bases," in *Proceedings of EACL*, St. Julians, Malta: Association for Computational Linguistics, Mar. 2024.
- Y. Bang, S. Cahyawijaya, N. Lee, et al., "A multitask, multilingual, multimodal evaluation of chatgpt on reasoning, hallucination, and interactivity," in *Proceedings of IJCNLP-AACL*, Nusa Dua, Bali: Association for Computational Linguistics, Nov. 2023, pp. 675–718. URL: https://aclanthology.org/2023.ijcnlp-long.45.
- Z. Wang, Q. V. Do, H. Zhang, et al., "COLA: Contextualized commonsense causal reasoning from the causal inference perspective," in *Proceedings of ACL*, Toronto, Canada: Association for Computational Linguistics, Jul. 2023, pp. 5253–5271. ODI: 10.18653/v1/2023.acl-long.288.
- T. Fang, Q. V. Do, H. Zhang, Y. Song, G. Y. Wong, and S. See, "PseudoReasoner: Leveraging pseudo labels for commonsense knowledge base population," in *Findings of the EMNLP*, Abu Dhabi, United Arab Emirates: Association for Computational Linguistics, Dec. 2022, pp. 3379–3394. ODOI: 10.18653/v1/2022.findings-emnlp.246.

## **Teaching Experience**

- 09/2023 12/2023 **Teaching Assistant**, COMP2211: Exploring Artificial Intelligence, HKUST
- 08/2017 07/2018 **Teaching Assistant**, CMATH Mathematics Center, Hanoi

## **Working Experience**

- 06/2022 08/2022 AI Engineer Intern, Eureka FinTech Limited, Hong Kong
- 09/2021 06/2022 Research Assistant, Knowledge Computation Group, HKUST
- 03/2021 09/2021 AI Engineer Intern, R&D group, Vietnam Technology International, Hanoi
- 09/2019 09/2021 Research Assistant, HKUST Cheminformatics Lab (led by Prof. Haibin SU),

## **Awards and Achievements**

- Area Chair Award, Language Modeling and Analysis Track, IJCNLP-AACL 2023
- 2022-2024 **Postgraduate Studentship**, HKUST
  - Academic Achievement Medalist of UG Class of 2022, HKUST
- 2019-2022 Chern Class Achievement Scholarship with outstanding performance, HKUST
- 2021, 2022 **Epsilon Fund Award**, HKUST
- - **University Scholarship**, HKUST
  - 2017 **Bronze Medalist**, 58th International Mathematical Olympiad

# **Miscellaneous Experience**

#### **Skills**

- Languages Vietnamese (Native), English (Full Proficiency), Chinese (Elementary Proficiency)
  - Coding Python, PyTorch, familiar to TPU-training and Cloud Computing
    - Misc. Seminar/event organization, Mental health First aid, Presentation (sample)

#### **Services**

- Reviewer EMNLP'22,23, ACL'23, AACL'23, EACL'24
- Volunteer | IJCAI'23
  - Others Guest speaker @ HKUST DSCT Alumni Sharing 2022
    - Representative @ HKUST RGC Visit 2023
    - Head of Event Organization @ VSAHK 2023
    - Speaker @ MathTalk 2024 (Vietnam)

## References

### Dr. Yangqiu Song

Associate Professor

**HKUST** 

Clear Water Bay, Hong Kong.

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#### **Dr. Raymond Wong**

Professor HKUST

Clear Water Bay, Hong Kong.

#### Dr. Desmond Tsoi

Assistant Professor of Engineering Education

**HKUST** 

Clear Water Bay, Hong Kong.

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