DO, Van Quyet

Email: quyetdo@vt.edu Semantic Scholar
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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

08/2024 - present — **Ph.D. Computer Science and Applications**
Virginia Tech
Supervisor: Prof. Tu Vu
Specialization: *Natural Language Processing, Transfer Learning*

08/2022 - 06/2024 — **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

1. **Q. V. Do**, J. Li, T.-D. Vuong, Z. Wang, Y. Song, and X. Ma, "What Really is Commonsense Knowledge," *Under Review*, 2024.
2. H. Lovenia, R. Mahendra, S. M. Akbar, *et al.*, "SEACrowd: A Multilingual Multimodal Data Hub and Benchmark Suite for Southeast Asian Languages," *arXiv*, vol. abs/2406.10118, 2024. URL: https://arxiv.org/abs/2406.10118.
3. T. Fang, **Q. V. Do**, S. Choi, W. Wang, and Y. Song, "CKBP v2: An Expert-Annotated Evaluation Set for Commonsense Knowledge Base Population," *ArXiv*, vol. abs/2304.10392, 2023. URL: https://api.semanticscholar.org/CorpusID:258236552.

Conference Proceedings

1. **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.
2. 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.

3 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. DOI: 10.18653/v1/2023.acl-long.288.

4 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. DOI: 10.18653/v1/2022.findings-emnlp.246.

Teaching Experience

09/2023 - 12/2023 **Teaching Assistant**, COMP2211: Exploring Artificial Intelligence, HKUST

02/2023 - 05/2023 **Teaching Assistant**, COMP4332: Big Data Mining and Management, HKUST

08/2017 - 07/2018 **Teaching Assistant**, CMATH Mathematics Center, Hanoi

Working Experience

06/2022 - 08/2022 **Software 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), HKUST

Awards and Achievements

2023 **Area Chair Award**, Language Modeling and Analysis Track, IJCNLP-AACL 2023

2022-2024 **Postgraduate Studentship**, HKUST

2022 **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

2018-2022 **Dean's List Student** (All semesters except Spring 2021), HKUST

University Scholarship, HKUST

2017 **Bronze Medalist**, 58th International Mathematical Olympiad

Miscellaneous Experience

Talks

04/2024 ConstraintChecker: A Plugin for Large Language Models to Reason on Commonsense Knowledge Bases (HKUST CSE RTF 2024)

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)

Miscellaneous Experience (continued)

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)

References

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