Keyu Wang

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EDUCATION

University of Tuebingen

Tuebingen, Germany

M.Sc. in Machine Learning

Oct. 2024 - Present

Cumulative GPA: 1.28 (Germany System: 1.0 is the best, 5.0 is the lowest) Relevant coursework: Non-convex Optimization of Deep Learning, etc.

Southeast University

Nanjing, China

B.Eng. in Artificial Intelligence

Sep. 2020 - Jun. 2024

Cumulative GPA: 3.79/4.00, Top 10% (Chinese System: 4.0 is the best, 0 is the lowest)

Relevant coursework: Linear Algebra, Calculus, Optimization, Probability Statistics & Stochastic Processes, Data Structures, Database, Distributed Systems, Machine Learning, Deep Learning, Natural Language Processing, etc.

Research Interests

- Machine Learning Systems: Efficient and scalable model training, fine-tuning, deployment and inference.
- Optimization: Optimization and theoretical understanding in Deep Neural Networks.
- AI Safety & Trustworthy: Safe & Explainable Language Models, Neuro-symbolic AI, Chain-of-Thought, etc.
- Generative AI: Large Language Models, Diffusion Models, Multimodal Large Language Models.

Publications

Peer-reviewed Conference

[1] Can Large Language Models Understand DL-Lite Ontologies? An Empirical Study.

Keyu Wang, Guilin Qi, Jiaqi Li and Songlin Zhai. In Findings of the Association for Computational Linguistics: EMNLP 2024, pages 2503–2519. https://aclanthology.org/2024.findings-emnlp.141/

[2] An Embedding-based Approach to Inconsistency-tolerancy Reasoning with Inconsistent Ontologies. Keyu Wang, Site Li, Jiaye Li, Guilin Qi and Qiu Ji. In Proceedings of The 12th International Joint Conference on Knowledge Graphs. https://arxiv.org/abs/2304.01664

Journal

[1] Embedding Ontologies via Incorporating Extensional and Intensional Knowledge.

Keyu Wang, Guilin Qi, Jiaoyan Chen, Yi Huang and Tianxing Wu. In Data Intelligence, Vol. 7, Issue 4, 1222-1241, 2024. DOI: https://doi.org/10.3724/2096-7004.di.2024.0088

Research Experience

Wild, Efficient, and Innovation AI Lab

Tuebingen, Germany

Research intern | Supervisor: Dr. Shiwei Liu

Feb. 2025 - Present

• Investigating on pruning LLMs.

Knowlegde Science & Engineering Lab | Southeast University

Nanjing, China

Undergraduate researcher | Supervisor: Prof. Dr. Guilin Qi

Jan. 2022 - Jul. 2024

- Investigated on neuro-symbolic knowledge representation and reasoning, especially, reasoning and embedding with knowledge-based and web-based systems such as knowledge graphs and ontologies.
- Led three research projects and produced three first-author manuscripts, which were accepted by EMNLP 2024 Findings, IJCKG 2023 and Data Intelligence Journal, respectively.

Internship

BSH Home Appliances Holding (China) Co., Ltd

Nanjing, China

Research intern | Mentor: Rick Du, Huilong An

Jul. 2023 - Jun. 2024

• Al enabled efficient R&D in Wash Machine/Dryer: Bridged the logical and casual relationships among hardware platform, program design, test standard, intermediate data and performances of Bosch and Siemens wash machines, especially, built a predictive model via deep learning to predict washing performances.

Grants

• Jiangsu Provincial College Student Innovation and Entrepreneurship Project Fund $(\leq 5\%)$

Role: Lead | Value: 8000 CNY (≈ 1067 EUR)

Jul. 2022 – May. 2023

Project title: A Study on Rational Inconsistency-Tolerant Reasoning Approach Based on Maximal Consistent Subsets

• Southeast University College Student Innovation and Entrepreneurship Project Fund

Role: Participant | Value: 1600 CNY (≈ 213 EUR)

Dec. 2021 - Oct. 2022

Project title: A Study on N-ary Relation Representation Learning Technology Based on Pre-trained Models

Awards

• Huawei Scholarship

Nov. 2023

Extracurricular

Study advisor for freshman undergraduates

Sep. 2022 - Jun. 2023

Engineering leader & co-founder of Artificial Intelligence Association of Southeast University [SEU-131AIClub]

May 2022 - Jun. 2023

Student lecturer for the course An Entertaining Introduction to AI at the Second Class for Students held jointly by SEU-131AIClub and the Department of CSE of Southeast University

Sep. 2022 – Dec. 2022

SKILLS

Programming: Python (PyTorch), C/C++, Java, etc.

Tools: VS Code, Jupyter Notebook, Shell, MATLAB, HTML/CSS/JavaScript, LATEX, MarkDown, etc.

Languages: Chinese (Native), English (IELTS 7.5).