Keyu Wang

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EDUCATION

University of Tuebingen

M.Sc. in Machine Learning

Tuebingen, Germany
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

Sep. 2020 - Jun. 2024

B.Eng. in Artificial Intelligence

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 & AI Effciency: Efficient model training, fine-tuning, deployment and inference.
- Optimization: Optimization and theoretical understanding in Deep Neural Networks.
- Reasoning: Mathematical Reasoning & Benchmarking, Logic, Chain-of-Thought, Self-consistency, etc.
- AI Safety & Trustworthy: Safe & Explainable Language Models, Neuro-symbolic AI, 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

Feb. 2025 - Present

Research intern | Supervisor: Dr. Shiwei Liu

• Investigating on pruning LLMs.

Knowlegde Science & Engineering Lab | Southeast University

Nanjing, China

Research intern | 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 ontolgies.
- Led three research projects, namely, Evaluating LLMs Reasoning with Description Logics, Knowledge-aware
 Ontology Embedding, Inconsistency-tolerant Reasoning and produced three first-author manuscripts accepted by
 EMNLP 2024 Findings, Data Intelligence Journal and IJCKG respectively.

BSH Home Appliances Holding (China) Co., Ltd

Nanjing, China

Intern | Mentor: Rick Du, Huilong An

Jul. 2023 - Jun. 2024

• AI-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 & Awards

Selected Grants

• Jiangsu Province University Student Innovation and Entrepreneurship Project Fund (<5%)
Role: Lead | Value: 8000 CNY (\approx 1067 EUR)

Jul. 2022 – May. 2023

Selected Awards

• Huawei Scholarship	Dec. 2022
• First Prize in Jiangsu Province University Students' Advanced Mathematics Competition	Jun. 2021
• First Prize in Southeast University Advanced Mathematics Competition (rank 8, 0.4%)	Apr. 2021
• First Prize in Southeast University Programming Contest (rank 5, < 5%)	Dec. 2020
• Silver Medal in China Southeast Mathematical Olympiad (CSMO)	Jul. 2019

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, LATEX, MarkDown, etc.

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