Zhao Meng

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PhD Student at ETH Zurich & Student Researcher at Google DeepMind

Education

ETH Zurich — **Zurich, Switzerland**
PhD, Electrical Engineering — *Nov. 2019 – Present*

ETH Zurich — **Zurich, Switzerland**
Master, Data Science — *Sep. 2017 – Oct. 2019*

Peking University — **Beijing, China**
Bachelor, Computer Science and Technology — *Sep. 2013 – Jul. 2017*

Experience

Google DeepMind
Student Researcher, Zurich — *Aug. 2023 – Present*
Supervisor: Massimo Nicosia
Achievements:
- Investigate multimodal applications for large language models.

Google Research
Student Researcher, New York City — *Jul. 2022 – Jul. 2023*
Supervisor: Daliang Li
Achievements:
- Investigate efficient and flexible retrieval augmentation for large language models.

Microsoft Research Asia
Research Intern, Beijing — *Oct. 2016 – Apr. 2017*
Supervisor: Jian-Guang Lou
Achievements:
- Investigate translating natural language text into task-specific programming language.

Carnegie Mellon University
Research Intern, Pittsburgh — *Jun. 2016 – Sep. 2016*
Supervisor: Justine Cassell, Yoichi Matsuyama
Achievements:
- Investigate Socially-Aware Robot Assistant.

Publications

1: Zifeng Ding, Ruoxia Qi, Zongyue Li, Bailan He, Jingpei Wu, Yunpu Ma, **Zhao Meng**, Zhen Han, Volker Tresp, "ForecastTKGQuestions: A Benchmark for Temporal Question Answering and Forecasting over Temporal Knowledge Graphs" In *Proceedings of the International Semantic Web Conference (ISWC)*, 2023.

2: Jens Hauser*, **Zhao Meng***, Damián Pascual, Roger Wattenhofer, "BERT is Robust! A

Case Against Synonym-Based Adversarial Examples in Text Classification" In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2023.

3: Yu Fei, **Zhao Meng**, Ping Nie, Roger Wattenhofer, Mrinmaya Sachan, "Beyond prompting: Making Pre-trained Language Models Better Zero-shot Learners by Clustering Representations" In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2022.

4: **Zhao Meng***, Yihan Dong*, Mrinmaya Sachan, Roger Wattenhofer, "Self-Supervised Contrastive Learning with Adversarial Perturbations for Robust Pretrained Language Models" In *Findings of the North America Chapter of Annual Meeting of the Association for Computational Linguistics (NAACL)*, 2022.

5: Guirong Fu*, **Zhao Meng***, Zhen Han, Zifeng Ding, Yunpu Ma, Matthias Schubert, Volker Tresp, Roger Wattenhofer, "TempCaps: A Capsule Network-based Embedding Model for Temporal Knowledge Graph Completion" In *Workshop on Structured Prediction for NLP at ACL*, 2022.

6: Zai Shi*, **Zhao Meng***, Yiran Xing, Yunpu Ma, Roger Wattenhofer, "3D-RETR: End-to-End Single and Multi-View 3D Reconstruction with Transformers" In *Proceedings of the British Machine Vision Conference (BMVC)*, 2021.

7: Nikola Jovanović, **Zhao Meng**, Lukas Faber, Roger Wattenhofer, "Towards Robust Graph Contrastive Learning" In *Workshop on Self-Supervised Learning for the Web*, 2021.

8: Yiran Xing*, Zai Shi*, **Zhao Meng***, Gerhard Lakemeyer, Yunpu Ma, Roger Wattenhofer, "KM-BART: Knowledge Enhanced Multimodal BART for Visual Commonsense Generation" In *Proceedings of the Annual Meeting of the Association for Computational Linguistics (ACL)*, 2021.

9: **Zhao Meng**, Roger Wattenhofer, "A Geometry-Inspired Attack for Generating Natural Language Adversarial Examples" In *Proceedings of the Conference on Computational Linguistics (COLING)*, 2020.

10: **Zhao Meng**, Lili Mou, Zhi Jin, "Towards Neural Speaker Modeling: The Task, Dataset and Models" In *Proceedings of the Language Resources and Evaluation Conference (LREC)*, 2018. *Also presented at AAAI*, 2018.

11: **Zhao Meng**, Lili Mou, Zhi Jin, "Hierarchical RNN with Static Sentence-Level Attention for Text-Based Speaker Change Detection." In *Proceedings of the Conference on Information and Knowledge Management (CIKM)*, 2017.

12: Lili Mou, **Zhao Meng**, Rui Yan, Ge Li, Yan Xu, Lu Zhang, Zhi Jin, "How Transferable are Neural Networks in NLP Applications?" In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2016.

13: **Zhao Meng**, Lili Mou, Ge Li, Zhi Jin, "Context-Aware Tree-Based Convolutional Neural Networks for Natural Language Inference." In *Proceedings of the Conference on Knowledge Science, Engineering and Management (KSEM)*, 2016.

**: equal contribution.*
See also at Google Scholar

Research Interests

Self-Supervised Learning; Adversarial Training; Retrieval Augmentation; Large Language Models; Multi-Modal Learning.

Coding Skills

Python; PyTorch; TensorFlow; JAX; Flax; T5X; SeqIO.

Awards

Marie Curie PhD Fellowship (declined)	*June. 2019*
Second Award of PKU Young Scientist Symposium on Informatics	*Nov. 2016*
Merit Student Award (top 15% of academic year 2015 - 2016)	*Oct. 2016*
Yangxin Scholarship	*Oct. 2016*