CHEN ZHENG

Personal WebPage ◇ LinkedIn
Tel: 504-261-8914 ◇ Email: zhengc12@msu.edu

EDUCATION

Michigan State University Degree: Ph.D. *Aug. 2018 - Present*
Major: Computer Science GPA: 4.0
Advisor: Parisa Kordjamshidi
Research: NLP (Nature Language Processing), Multi-hop Reasoning, and Information Retrieval.

Binghamton University Degree: Master *Aug. 2015 - Dec. 2017*
Major: Computer Science GPA: 3.66
Advisor: Zhongfei(Mark) Zhang
Research: NLP (Nature Language Processing) and Deep Learning.

Tianjin Polytechnic University Degree: Bachelor *Aug. 2010 - Aug. 2014*
Major: Computer Science GPA: 3.5
Advisor: Weidong Min

PUBLICATION

- **Zheng, Chen, and Parisa Kordjamshidi. "Relational Gating for "What If" Reasoning." IJCAI 2021.**
- **Zheng, Chen, and Parisa Kordjamshidi. "SRLGRN: Semantic Role Labeling Graph Reasoning Network." EMNLP 2020.**
- **Zheng, Chen, Quan Guo, and Parisa Kordjamshidi. "Cross-Modality Relevance for Reasoning on Language and Vision." ACL 2020.**
- **Zheng, Chen, et al. "RLTM: an efficient neural IR framework for long documents." IJCAI 2019.**
- **Zheng, Chen, Zhai, Shuangfei, and Zhang, Zhongfei. "A deep learning approach for expert identification in question answering communities." arXiv preprint arXiv:1711.05350 (2017)**.

INTERNSHIP EXPERIENCE

1. **Internship in Information Retrieval group, JD Inc.** *Jun. 2019 - Aug. 2019*
   - Design a novel retrieval approach, DPSR, to retrieve items that are semantically relevant but not exact matching to query terms and retrieve items that are more personalized to different users for the same search query.
   - Paper name: Towards Personalized and Semantic Retrieval: An End-to-End Solution for E-commerce Search via Embedding Learning.
   - The paper was published in SIGIR 2020. My name appears in the Acknowledgement section.
2. **Internship in NLP group, Baidu Inc.** *Jan. 2018 - July. 2018*
   - Build a novel neural ranking framework called Reinforced Long Text Matching which matches a query with long documents.
   - State-of-the-art performance in NDCG and MAP. The paper was published in IJCAI 2019.

RESEARCH EXPERIENCE

1. **SRLGRN: Semantic Role Labeling Graph Reasoning Network** *Jan. 2020 - Aug. 2020*
   - Solve the challenge of learning and reasoning over multi-hop question answering (QA).
   - Build a graph reasoning network based on the heterogeneous semantic role labeling graphs.
   - The model learns cross paragraph reasoning paths and find the supporting facts and the answer jointly.
   - Competitive performance on the HotpotQA benchmark. The paper was published in EMNLP 2020.
2. **Cross-Modality Relevance for Reasoning on Language & Vision** *Sep. 2019 - Dec. 2019*
   - Design a novel cross-modality relevance model to learn the relevance representation between components of various input modalities.
   - Introduce the higher-order relevance between entity relations in the text and object relations in the image.
   - State-of-the-art performance in NLVR and VQA tasks. The paper was published in ACL 2020.
3. **Relational Gating for "What If" Reasoning.** *Sep. 2021 - May. 2022*
   - Deal with the challenge of learning and reasoning over procedural text.
   - Propose novel entity gating and relational gating mechanism to capture the most important entities and relationships involved in qualitative comparison, causal reasoning and multi-hop reasoning.
   - Competitive performance on the WIQA benchmark. The paper was published in IJCAI 2021.
4. **Expert Identification in Question Answering Communities** *Aug. 2016 - May. 2017*
   - Build a language model for the expert identification task in QA communities.
   - The Top-1 test accuracy outperforms most of the baselines. The paper was published in arXiv.

SPECIAL SKILLS

- Programming language: Java, Python, SQL.
- Deep learning Framework: Pytorch, TensorFlow, AllenNLP.
- Machine Learning: NLP Algorithms and Machine Learning Algorithms.
- Big Data: Hive, Pig, MapReduce.