CHEN ZHENG

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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. "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*
   - Designing a Deep Learning model to solve the IR problem.
   - Paper name: Towards Personalized and Semantic Retrieval: An End-to-End Solution for E-commerce Search via Embedding Learning.
   - The paper published in SIGIR 2020. My name appears in Acknowledgement section.
2. **Internship in NLP group, Baidu Inc.** *Jan. 2018 - July. 2018*
   - Developing a Deep Learning based relevance matching method to solve the IR problem.
   - State-of-the-art performance in NDCG and MAP. The paper published in IJCAI 2019.

RESEARCH EXPERIENCE

1. **SRLGRN: Semantic Role Labeling Graph Reasoning Network** *Jan. 2020 - Aug. 2020*
   - The research deals with the challenge of learning and reasoning over multi-hop question answering (QA).
   - The framework is 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.
   - The proposed approach shows competitive performance on the HotpotQA benchmark. The paper published in EMNLP 2020.
2. **Cross-Modality Relevance for Reasoning on Language & Vision** *Sep. 2019 - Dec. 2019*
   - Designing a novel cross-modality relevance model to learn the relevance representation between components of various input modalities.
   - The model includes 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 published in ACL 2020.
3. **Spatial Semantic Representation on Language and Vision** *Sep. 2018 - May. 2019*
   - This work introduces a novel end-to-end deep learning and reasoning model with explicit spatial semantics, called Deep-SpRQL, for joint language and vision understanding.
4. **Expert Identification in Question Answering Communities** *Aug. 2016 - May. 2017*
   - Building up a language model for the expert identification task in QA communities.
   - The Top-1 test accuracy outperforms most of the baselines. The paper 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.