Zhe LI

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Education

2018 – 2021	🔖	**Xinjiang University** Master in Software Engineering
2012 – 2016	🔖	**Qilu University of Technology** Bachelor degree in Computer Science

Research Interest

Natural Language Processing	🔖	Highly motivated, energetic, and enthusiastic on the topics of Natural Language Processing including Social Media Mining and Multimodal Content Analysis.

Employment History

2021.07 –	🔖	**Hong Kong Polytechnic University**
Task and Duty	🔖	Research Assistant. Deliver Effective Training of Clinical Communication — A Multi-turn Customized Conversation System with Medical Knowledge Graph
2018.05 – 2018.08	🔖	**Institute of Information Engineering,Chinese Academy of Sciences**
Task and Duty	🔖	Big Data Intern Engineer. In charge of the operational test of big data cluster including Hadoop/Yarn/Spark/Kafka to ensure availability, and stability.
2017.03 – 2018.04	🔖	**Software Development Center, People's Bank of China**
Task and Duty	🔖	Java Development Regular Engineer. Develop and upgrade the inter-bank payment clearing system and the second-generation payment system.

Research Publications

Journal Articles

1. Li, y., Luan, X., Ke, Z., **Li,Z.**, & Wushour, S. (0). A survey of knowledge-guided pre-trained language models. *Computer engineering*, 0. 🔗 https://doi.org/10.19678/j.issn.1000-3428.0060823

2. Ke, Z., Sheng, J., **Li,Z.**, Wushour, S., & Guo, Q. (2021). Knowledge-guided sentiment analysis via learning from natural language explanations. *IEEE Access*, *9*, 3570–3578.

3. Ren, Z., Zhenchao, W., Zunwang, K., **Li,Z.**, & Wushour, S. (2021). A survey of multimodal data fusion. *Computer Engineering and Applications*.

4. Ke, Z., **Li,Z.**, Zhou, C., Sheng, J., Wushour, S., & Guo, Q. (2020). Rumor detection on social media via fused semantic information and a propagation heterogeneous graph. *Symmetry*, *12*(11), 1806.

5. Kong, X., Silamu, W., Qimeng, Y., & **Li,Z.** (2020). Uyghur named entity recognition via transfer learning. *Journal of Northeast Normal University(Natural Science Edition)*, *52*(2), 58–65.

6. Sheng, J., Wumaier, A., & **Li,Z.** (2020). Poise: Efficient cross-domain chinese named entity recognition via transfer learning. *Symmetry*, *12*(10), 1673.

7. **Li,Z.**, Li, X., Sheng, J., & Slamu, W. (2020). Agglutifit: Efficient low-resource agglutinative language model fine-tuning. *IEEE Access*, *8*, 148489–148499.

8 **Li,Z.**, Maimaiti, M., Sheng, J., Ke, Z., Silamu, W., Wang, Q., & Li, X. (2020). An empirical study on deep neural network models for chinese dialogue generation. *Symmetry*, *12*(11), 1756.

Conference Proceedings

1 Li, X., **Li,Z.**, Sheng, J., & Slamu, W. (2020). Low-resource text classification via cross-lingual language model fine-tuning, In *China national conference on chinese computational linguistics*. Springer.

2 Qing, Y., **Li,Z.**, Jiabao, S., Jing, S., & Wushour, S. (2020). Yuq: A chinese-uyghur medical-domain neural machine translation dataset towards knowledge-driven, In *China conference on machine translation*. Springer.

Principal Investigator

■ Cross-modal and Multilingual Social Media Mining Based on Big Data in Cyberspace, Xinjiang Uygur Autonomous Region Graduate scientific research Innovation project, Project Grant NO. XJ2020G071, 2020/01-2021/4, under research.

■ Translation Times Network Translation Trading Consulting Co., LTD., National College students' Innovation, and Entrepreneurship training Plan, Project Grant NO. 201410431049, 2014-2015, concluded.

Project Experience

Multi-round dialogue via knowledge graph

Project Brief ■ Deliver Effective Training of Clinical Communication — A Multi-turn Customized-Conversation System with Medical Knowledge Graph.

Project Role ■ 1) Automatic Speech Recognition (ASR)
2) Medical knowledge graph construction
3) Named entity recognition and symptom recognition

Cross-lingual Multimodal Social Media Analysis

Project Brief ■ An Internet social web analysis system for minority languages over natural language processing, statistical machine learning, and cross-modal analysis technology.

Project Role ■ 1) Data Acquisition and Preprocessing 2) Topic Detection and Summarization 3) Rumor Detection 4) Text classification and Sentiment Analysis

Project Address ■ `http://47.105.117.204:8080/yq2/`

Social Web Intelligence Analysis and User Identification Technology

Project Brief ■ The project mainly includes Social Web malicious user identification and location technology with given semantics, a portrait of multi-source Social Web platform users.

Project Role ■ 1) Social Web Data Acquisition and Preprocessing 2) Social Web Domain Knowledge Base Construction 3) Malicious User Portrait

Project Address ■ `http://47.105.117.204:8080/yq2/darkweb/`

Uyghur Search Engine

Project Brief ■ Incremental crawling on the Internet, the index is written into Solr, then web display.

Project Role ■ Independent development

Project Address ■ `http://47.105.117.204:8080/SolrSearchEngine`

Miscellaneous Experience

Awards and Achievements

2020.05 — Excellent scientific and technological achievements Award of the Chinese Association for Artificial Intelligence

2019.11 — **Top 100 teams** of Intel Cup the first China Graduate Students artificial intelligence innovation competition

2019.09 — **Bronze Award** of The 5th China College Students' 'Internet+'Innovation and Entrepreneurship Competition Xinjiang Division

2019.05 — **The Second Prize** of The 10th Chinese College Students innovation and Entrepreneurship Competition

Scholarship

2021.05 — Scholarship of Xinjiang Uygur Autonomous Region

2015 — Shandong Provincial Government Scholarship.

2013 — National Encouragement Scholarship

Comprehensive Honor

2016 — Outstanding Graduate of Shandong Province

— Excellent Bachelor's Thesis of Shandong Province

Academic Work

— Internation Journal Information and Communication Technology(IJ-ICT) and IEEE Access Reviewer

— Member of the Chinese Information Processing Society of China

— Member of the Chinese Association for Artificial Intelligence

Skills

Deep Leaning — Familiar with deep learning basic theories and models including RNN, Transfomer, BERT, and Seq2Seq, etc.

Machine Learning — Familiar with basic statistical machine learning theories and algorithms.

Coding — Familiar with Java, Python, Web, and MySQL database, have enterprise-level project development experience.

Languages — Good at reading, writing. Have finished several SCI and EI papers.

Academic Activities

2020.10 — I have present an oral paper presentation on The 16th China Conference on Machine Translation.

2019.10 — Attend the Eighteenth China National Conference on Computational Linguistics academic conference.

2019.08 — Shortlisted Zhijiang International Youth Talent Fund.

— Participate in the 2019 Artificial Intelligence Training Camp (Intel) for College Students.

2015.07 — Participate in the third "Flintstone Spark Entrepreneurship Training Camp" held by Shenzhen Stock Exchange.