

Zhuochun Li

Mobile: +1 (878)-999-6935

Website: <https://zhuochunli.github.io/>

Email: zh1163@pitt.edu

Education

University of Pittsburgh

Ph.D. in Information Science

Master of Science in Information Science, GPA: 3.9/4.0

School of Computing and Information (SCI)

Pittsburgh, USA

Sep 2023 – Present

Jan 2021 – Dec 2022

Xi'an University of Technology

Bachelor of Engineering in Computer Science

Sep 2016 – Jul 2020

Xi'an, China

Research Interests

My research interests include Natural Language Processing (NLP), Information Retrieval, and Machine Learning.

Publications

Li, Z., Thaker, K., & He, D. (2023, October). SiaKey: A Method for Improving Few-shot Learning with Clinical Domain Information. In *2023 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)* (pp. 1-4). IEEE.

Luo, Z., Ji, Y., Gupta, A., **Li, Z.**, Frisch, A., & He, D. (2023, October). Towards Accurate and Clinically Meaningful Summarization of Electronic Health Record Notes: A Guided Approach. In *2023 IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)* (pp. 1-5). IEEE.

Li, Z., Wang, Z., Yan, W., Huang, M., Fan, Q., & Wang, X. (2022, September). Domestic Violence Crisis Recognition Method based on Bi-LSTM+ Attention. In *2022 8th Annual International Conference on Network and Information Systems for Computers (ICNISC)* (pp. 569-575). IEEE.

Academic Experience

Research Assistant, iRIS Lab at University of Pittsburgh

May 2022 – May 2023

Supervised by Director Daqing He and collaborated with Ph.D. students.

Pittsburgh, U.S.

- Conducted the project of Ovarian Cancer Forum, which was cooperated with the School of Nursing.
- Studied few-shot learning methods in the application of text classification and recommendation system.
- Achieved average accuracy over 60% by 10-shot training on Siamese Networks, which is comparable to base Bert performance on this task.

Computer Vision - 16-720A, Carnegie Mellon University

Jan 2022 - Apr 2022

Completed the Computer Vision course with grade A taught by Professor David Held of CMU Pittsburgh, U.S.

- Learned technologies about Spatial Pyramid Matching, Planar Homographies and Lucas-Kanade Tracking.
- Contributed to tasks about 3D Reconstruction, Neural Networks for Recognition and Photometric Stereo.
- Comprehended the cutting-edge deep learning models such as GAN, VAE and Transformers.

Undergraduate Thesis Project

Jan 2020 - Jul 2020

Implementation of Domestic Violence Crisis Recognition Method based on Deep Learning

Xi'an, China

- Related paper has been published in journal "Computer Technology and Development" in April 2022.
- Collected 1654 posts related to Domestic violence and built 50-dimensional word vector via Word2Vec.
- Constructed CNN, RNN, LSTM, Bi-LSTM+self-Attention neural network models to accomplish text categorization task, Bi-LSTM+self-Attention model had the best performance, with accuracy rate of 90.22% and recall rate of 93.98%.

Researcher, Intelligent Chat Bot Design

Jul 2019 - Aug 2019

Research supervised by instructor Fan Zhang from Massachusetts Institute of Technology

Remote

- Trained text dataset containing over 1000 sentences and achieved accuracy rate of 80% utilizing rasa_nlu.

- Interpreted intentions from user stock queries and supported over 100 daily dialogue occasions by spaCy.
- Integrated the bot on Wechat and enabled users to acquire expected stock information within 1.5 seconds.

Teaching

Spring 2024: TA for INFSCI 2440 Artificial Intelligence

Fall 2023: TA for INFSCI 2140 Information Storage & Retrieval

Fall 2023: TA for INFSCI 2410 Intro to Neural Networks

Awards

Outstanding Undergraduate Thesis Award (2020)

Third Prize Scholarship for Excellent in Academic Performance (2018)

Work Experience

AI Intern, MEDA AI

May 2022 - Aug 2022

Internship with Half Moon Tech to work on the Meda Metaverse project.

Remote, U.S.

- Improved the text to speech (TTS) model based on Tacotron and built server to train model over 10M steps.
- Assisted constructing 3D character model and got average accuracy over 85% on facial attributes classification task on dataset CelebA.
- Developed API for integrating with backend services and maintained Linux servers.

Software Engineering Intern, Pactera Technology

May 2021 - Aug 2021

Design and Development of Intelligent Customer Service System

Wuhan, China

- Conducted field surveys over 100 customers, assisted designing database E-R model containing 34 tables.
- Contributed more than 20 web page interface implementation for different service requirements of clients.
- Developed online semantic analysis system using Baidu voice recognition API with 80% code coverage.

Skills

Programming Language/Platform: Python (main), C, C++, JAVA, SQL, MySQL, Linux, AWS, Matlab.

Tools: GIT, Anaconda, Tensorflow, Pytorch, Keras, Numpy, Scikit, OpenCV, Spacy, Rasa_nlu, Word2Vec, BERT.