Xiang Li

Homepage: https://south7x.github.io/about/

Mobile : +86-13550230161

Email : xiangli@stu.hit.edu.cn

Education

- **Harbin Institute of Technology** Shenzhen, China
  B.Eng. - Computer Science and Technology; **GPA: 92.6/100**; **Ranking: 15/204** Sept. 2018 - Jun. 2022 (expected)
  Curriculum Highlights: Mathematical Logic 100*, Software Architecture 100*, Professional Research English 100*, Probability Theory 98.8, Deep Learning Architecture 98*, Digital Logic Design 97.5, Artificial Intelligence 97, Natural Language Processing 96*, Operating System 96 (*: rank 1st in all students of the course)

  IELTS 7.5 (R8.5, L8.5, W6.5, S6)

Publications

- Bin Liang*, **Xiang Li***(**co-first author**), Lin Gui, Yonghao Fu, Yulan He, Min Yang, Ruifeng Xu. Few-Shot Aspect-Category Sentiment Analysis via Meta-Learning. *Accepted to **TOIS**.*
- Bin Liang*, Qinglin Zhu*, **Xiang Li***(**co-first author**), Min Yang, Lin Gui, Yulan He, and Ruifeng Xu. JointCL: A Joint Contrastive Learning Framework for Zero-Shot Stance Detection. *Accepted to **ACL**'2022.*
- Bin Liang, Chenwei Lou, **Xiang Li**, Min Yang, Lin Gui, Yulan He, Wenjie Pei, and Ruifeng Xu. Multi-Modal Sarcasm Detection via Cross-Modal Graph Convolutional Network. *Accepted to **ACL**'2022.*
- Bin Liang, Wangda Luo, **Xiang Li**, Lin Gui, Min Yang, Xiaoqi Yu, and Ruifeng Xu. Enhancing Aspect-Based Sentiment Analysis with Supervised Contrastive Learning. *Proceedings of **CIKM**'2021, pp. 3242–3247.*
- Bin Liang, Chenwei Lou, **Xiang Li**, Lin Gui, Min Yang, and Ruifeng Xu. Multi-Modal Sarcasm Detection with Interactive In-Modal and Cross-Modal Graphs. *Proceedings of **ACM MM**'2021, pp. 4707–4715.*
- Qinglin Zhu, Zijie Lin, Yice Zhang, Jingyi Sun, **Xiang Li**, Qihui Lin, Yixue Dang, and Ruifeng Xu. HITSZ-HLT at SemEval-2021 Task 5: Ensemble Sequence Labeling and Span Boundary Detection for Toxic Span Detection. *Proceedings of **SemEval**'2021, pp. 521–526.*
- Yuhan Liu, Jiachen Du, **Xiang Li**, and Ruifeng Xu. Generating Empathetic Responses by Injecting Anticipated Emotion. *Proceedings of **ICASSP**'2021, pp. 7403-7407.*

Honors and Awards

- LiGuang Scholarship (**Top 10** in 1000+ applicants), *Harbin Institute of Technology* Nov. 2021
- SemEval-2021 Task 5 Competition: Toxic Spans Detection (**Top 1** in 91 participants) Feb. 2021
- CCKS-2020 Evaluation Task: Event Subject Extraction (**Top 2** in 761 participants) Nov. 2020
- The First-class Academic Scholarship, *Harbin Institute of Technology* Oct. 2019 & 2020
- Merit Students, *Harbin Institute of Technology* Oct. 2019 & 2020
- The Second Prize of National English Competition for College Students (**Top 3**%) Apr. 2019

Research Experience

The Chinese University of Hong Kong, Research Assistant. Advisor: Prof. Wong Kam Fai

- **Semantic-driven Effective Video Extractive Summarization System** Jan. 2022 - Now
  - Participating in a research project on video summarization task, aiming at capture the essence of original video to extract a short summary as an alternative to viewing the whole video.
  - Different from most existing video summarization models that make an independent per-frame binary selection, this work formulates the task as a sequence-to-sequence problem and proposes an encoder-decoder framework, which allows selected frames to influence each other and benefits handling varying lengths of videos.
  - Takes both visual and semantic features as input and utilizes a powerful cross-modal pre-trained model for knowledge distillation to guide encoder to learn with fewer parameters, which can help get better feature representation and improve the inference computation speed. To boost interaction between modals, a cross-modal fusion module is designed for multi-head attention between visual and semantic features. Finally, the auto-regressive decoder disentangles the joint-embedding to generate video and text summaries simultaneously.

Human Language Technology Lab, HITSZ. Advisor: Prof. Ruifeng Xu

- **JointCL: A Joint Contrastive Learning Framework for Zero-Shot Stance Detection**, paper accepted to ACL-2022, *co-first author.* Mar. 2021 - Nov. 2021
  - Participated in the whole research process to tackle zero-shot stance detection from both context-aware and target-aware perspectives by a joint contrastive learning (JointCL) framework, which consists of stance contrastive learning and target-aware prototypical graph contrastive learning, resulting in sate-of-the-art performance on benchmark datasets.
  - Pre-processed datasets; implemented our method in code and conducted experiments among our method and baseline models; visualized the metric scores to measure the alignment and uniformity performance of vector distribution.
  - Wrote the first draft of abstract, introduction and task description; checked and revised the submitted paper.

- **Few-Shot Aspect-Category Sentiment Analysis via Meta-Learning**, article accepted to TOIS, *co-first author.* Nov. 2020 - Jul. 2021
  - Participated in the whole research process to formally define and formulate aspect category sentiment analysis as a few-shot learning task as well as design a novel Aspect-Focused Meta-Learning framework by leveraging the contrastive representations and aspect-focused sentiment expressions for meta-learning.
  - Gathered related work on few-shot learning and meta-learning; designed the new task setting for few-shot aspect category sentiment analysis; collected and reconstructed four widely-used public datasets; implemented and conducted main and analytical experiments.
  - Wrote part of related work, brief introduction of baseline models and experiments results, and description table for notations used in the paper; checked and revised the submitted paper.

- The 15th International Workshop on Semantic Evaluation (**SemEval-2021**) **Task 5: Toxic Spans Detection**, *cooperated with Qinglin Zhu et al.* Dec. 2020 - Jan. 2021
  - Data analysis (word, phrase and sentence-level toxic spans statistics, toxic word frequency, etc.) and data cleaning.
  - Designed and implemented our lexicon-based approaches using a method of toxic vocabulary extracted from training data, which lead to our baseline submission with an F1 score of 64.98% and a precision of 76.7% that even higher than our ensemble method.
  - We got a final F1 score of 70.8% using an ensemble method, ranked 1st out of 91 participants at last.

Projects

- **Android APP Development (Team leader, 3k lines of code in Java)**
  We developed an application named HITeen, aiming at helping improve the canteen service on campus. The main services of HITeen are canteen information displaying and management, food ordering, comments analysis, dish rankings, searching for dishes, eating habits analysis, etc. Data structures like Hash table, Tree, linked list and related algorithms are utilized when designing the system.

- **Simple EXT2 File System (Independently, 1k lines of code in C)**
  Implementation of a simple EXT2 file system, which consists of an interactive shell with available shell commands: ls, mkdir, touch, cp, etc. The system realizes the underlying operation s, including block and inode allocation, supernode maintenance and initialization, reading and writing inode, etc.

- **Multi-Cycle MIPS CPU Implementation (Independently, 1k lines of code in Verilog)**
  Designed a simulated Multi-Cycle CPU that could run 31 instructions with VIVADO. The whole system includes modules of Instruction Memory, Register File, ALU, Data Memory, Controller and implements how different signals flow among modules to make it work.

Skills

- Programming Languages: Python, C/C++, Java, Verilog
- Framework: Pytorch
- Others: Linux, Git, Shell, LaTex, Markdown, Web Establishment

Teaching Experience

- Teaching Assistant for Digital Logic Design Laboratory Experiments 2020 Fall
- Teaching Assistant for Computer Architecture Laboratory Experiments 2021 Fall