WEI HAN

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EDUCATION

Singapore University of Technology and Design (SUTD)

Singapore

Ph.D. in Information Systems and Technology Design (ISTD)

Sep 2020 – Present

Advisor: Soujanya Poria

The Hong Kong University of Science and Technology (HKUST)

Hong Kong SAR, China

M.Phil. in Electronic and Computer Engineering

Aug 2018 - Aug 2020

Advisor: Wei Zhang

Zhejiang University (ZJU)

Zhejiang, China

B.S. in Electronics and Information Engineering, Chu Kochen Honors College

Aug 2014 - Jun 2018

GPA: 3.90/4.00, ranking top 2%

PUBLICATIONS

- 1. **Wei Han**, Hui Chen, Min-Yen Kan, Soujanya Poria, "MM-Align: Learning Optimal Transport-based Alignment Dynamics for Fast and Accurate Inference on Missing Modality Sequences", *The Conference on Empirical Methods in Natural Language Processing (EMNLP)*, *Long Paper*, 2022 [paper] [code]
- 2. **Wei Han**, Hui Chen, Zhen Hai, Soujanya Poria, Lidong Bing, "SANCL: Multimodal Review Helpfulness Prediction with Selective Attention and Natural Contrastive Learning", *International Conference on Computational Linguistics* (COLING), Long Paper, 2022. [paper] [code]
- 3. **Wei Han**, Hui Chen, Soujanya Poria, "Improving Multimodal Fusion with Hierarchical Mutual Information Maximization for Multimodal Sentiment Analysis", *The Conference on Empirical Methods in Natural Language Processing (EMNLP)*, *Long Paper*, 2021. [paper] [code]
- 4. **Wei Han**, Hui Chen, Alexander Gelbukh, Amir Zadeh, Louis-philippe Morency, Soujanya Poria, "Bi-Bimodal Modality Fusion for Correlation-Controlled Multimodal Sentiment Analysis", *ACM International Conference on Multimodal Interaction (ICMI)*, 2021. **Best Paper Nomination**. [paper] [code]
- 5. Hui Chen, **Wei Han**, Soujanya Poria, "SAT: Improving Semi-Supervised Text Classification with Simple Instance-Adaptive Self-Training", *Findings of the Conference on Empirical Methods in Natural Language Processing (EMNLP Findings)*, 2022 [paper] [code]
- 6. Hui Chen, **Wei Han**, Diyi Yang, Soujanya Poria, "DoubleMix: Simple Interpolation-Based Data Augmentation for Text Classification", *International Conference on Computational Linguistics (COLING)*, *Long Paper*, 2022.
- 7. Yujie Lu, Yingxuan Huang, Shengyu Zhang, **Wei Han**, Hui Chen, Zhou Zhao, Fei Wu, "Multi-trends Enhanced Dynamic Micro-video Recommendation", *arXiv* preprint., 2021. [paper]
- 8. Hui Chen, Pengfei Hong, **Wei Han**, Navonil Majumder, and Soujanya Poria. "Dialogue Relation Extraction with Document-level Heterogeneous Graph Attention Networks", *arXiv preprint*, 2020. [paper] [code]
- 9. **Wei Han**, Hui Chen, Soujanya Poria, "Fusion Is Not All You Need! A Matching-based Fusion-free Approach for Multimodal Review Helpfulness Prediction", *under review*

PROJECTS

Multimodal Learning

Sept. 2020—

Brief introduction: Design effective learning models and training algorithms to boost the performance on multimodal tasks, including:

- Multimodal sentiment analysis: estimating sentiment/emotions in YouTube videos.
- Multimodal comment rating prediction: estimating helpfulness scores of customer comments given corresponding product introductions.

Semi-supervised Learning

Jan. 2021—

Brief introduction: Design effective training algorithms to boost the most advanced model's performance on targeted tasks and datasets with only a small portion of the full training set labeled, including:

- Multimodal task when the input of one or many modalities is missing.
- Text classification (GLUE benchmark) with 1% labeled training set.

Relation Extraction in Dialog

June. 2020—Aug. 2020

Brief introduction: Design and implement a GNN-based model to learn meaningful hidden representations for the relation extraction task

SKILLS

- Programming Languages: Python > MATLAB == C++ > C > Verilog
- Deep Learning Framework: PyTorch > Tensorflow » Theano
- Software & Tools: Microsoft Office, Latex

♥ Honors and Awards

1st Class Scholarship for Academic Achievements	2015, 2016
1 st Class Scholarship for Academic Achievements	2015, 2016
3 rd Class in the Chinese National College Student Mathematical Competition	2015
Provincial Government Scholarship of Zhejiang Province	2016
3 rd Class in the Programming Contest in Zhejiang University	2016
3 rd Class Scholarship for Outstanding Students	2017
Postgraduate Studentship in HKUST	2018 - 2020
SUTD Ph.D. Fellowship	2020 – Present