Biaoyan Fang

Ph.D. Candidate (Natural Language Processing, Deep Learning) Supervisors: Prof. Karin Verspoor and Prof. Tim Baldwin

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EDUCATION

Sept 2018 - Present Ph.D. candidate at The University of Melbourne, VIC,

Australia

Research Area: Natural Language Processing, Information Re-

trieval

Aug 2014 - Jun 2018 Bachelor of Engineering in Sun Yat-sen University,

Guangzhou, China

Major: Information Security GPA: 3.8 /4.0 | RANKING: 1 /72

EXPERIENCE

Jun 2022 - Present

Research Fellow in Bias in NLP, The University of Melbourne, VIC, Australia

Detailed achievements:

1. Created and prepared a multi-source legal dataset with a focus on the US supreme court.

2. Investigated conversational behaviors in the courtroom. One related paper is under review.

2020, Semester 1

Tutor at School of Computing and Information Systems, University of Melbourne, VIC, Australia

Course: Natural Language Processing COMP90042

APR 2017 - JUN 2018

Research Assistant at InplusLab, Sun Yat-sen University, Guangzhou, China

Detailed achievements:

1. Utilized NLP methods for news detection task, predicting if it is written by machine

2. Implemented HTCondor distributed framework to support high throughput computing

3. Jiajing Wu, **Biaoyan Fang**, Junyuan Fang, Xi Chen and Chi K. Tse. "Sequential topology recovery of complex power systems based on reinforcement learning", In *journal: Physica A: Statistical Mechanics and its Applications*, Vol. 535, 2019

Supervisor: Prof. Zibin Zheng and A/Prof. Jiajing Wu

Publication

Biaoyan Fang, Timothy Baldwin and Karin Verspoor. What does it take to bake a cake? The RecipeRef corpus and anaphora resolution in procedural text. In Findings of ACL 2022, Dublin, Ireland, 2022.

Yuan Li, **Biaoyan Fang**, Jiayuan He, Hiyori Yoshikawa, Saber A. Akhondi, Christian Druckenbrodt, Camilo Thorne, Zenan Zhai, Zubair Afzal, Trevor Cohn, Timothy Baldwin and Karin Verspoor. The ChEMU 2022 Evaluation Campaign: Information Extraction in Chemical Patents. In Proceedings of the 44rd European Conference on Information Retrieval (ECIR 2022), Stavanger, Norway, 2022.

Biaoyan Fang* and Fajri Koto*. Context-Aware Sentence Classification in Evidence-Based Medicine. In *Proceedings of the Australasian Language Technology Association Workshop 2022 (ALTA 2022)*, Adelaide, Australia, 2022.

Biaoyan Fang, Christian Druckenbrodt, Saber A. Akhondi, Jiayuan He, Timothy Baldwin and Karin Verspoor. ChEMU-Ref: A Corpus for Modeling Anaphora Resolution in the Chemical Domain. In Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics (EACL2021), virtual, pp. 1362–1375, 2021.

Jiayuan He, **Biaoyan Fang**, Hiyori Yoshikawa, Saber A. Akhondi, Christian Druckenbrodt, Camilo Thorne, Zubair Afzal, Zenan Zhai, Lawrence Cavedon, Trevor Cohn, Timothy Baldwin and Karin Verspoor. ChEMU 2021: Reaction Reference Resolution and Anaphora Resolution in Chemical Patents. In *Proceedings of the 43rd European Conference on Information Retrieval (ECIR 2021)*, virtual, 2021.

Karin Verspoor, Simon Suster, Yulia Otmakhova, Shevon Mendis, Zenan Zhai, **Biaoyan Fang**, Jey Han Lau, Timothy Baldwin, Antonio Jimeno-Yepes and David Martinez. Brief Description of COVID-SEE: The Scientific Evidence Explorer for COVID-19 Related Research. In *Proceedings of the 43rd European Conference on Information Retrieval (ECIR 2021)*, virtual, 2021.

Fajri Koto* and **Biaoyan Fang***, <u>Handling Variance of Pretrained Language Models in Grading Evidence in the Medical Literature.</u> In *Proceedings of the Australasian Language Technology Association Workshop 2021 (ALTA 2021)*, virtual, 2021.

Jiayuan He, Dat Quoc Nguyen, Saber A. Akhondi, Christian Druckenbrodt, Camilo Thorne, Ralph Hoessel, Zubair Afzal, Zenan Zhai, **Biaoyan Fang**, Hiyori Yoshikawa, Ameer Albahem, Lawrence Cavedon, Trevor Cohn, Timothy Baldwin and Karin Verspoor. ChEMU 2020: Natural Language Processing Methods Are Effective for Information Extraction From Chemical Patents. Frontiers in Research Metrics and Analytics 6, 2020.

Jiayuan He, Dat Quoc Nguyen, Saber A. Akhondi, Christian Druckenbrodt, Camilo Thorne, Ralph Hoessel, Zubair Afzal, Zenan Zhai, **Biaoyan Fang**, Hiyori Yoshikawa, Ameer Albahem, Lawrence Cavedon, Trevor Cohn, Timothy Baldwin, Karin Verspoor. <u>Overview of ChEMU 2020</u>: Named Entity Recognition and Event Extraction of Chemical Reactions from Patents. In *Proceedings of CLEF 2020*, pp. 237—254. 2020.

Dat Quoc Nguyen, Zenan Zhai, Hiyori Yoshikawa, **Biaoyan Fang**, Christian Druckenbrodt, Camilo Thorne, Ralph Hoessel, Saber A. Akhondi, Trevor Cohn, Timothy Baldwin and Karin Verspoor. ChEMU: Named Entity Recognition and Event Extraction of Chemical Reactions from Patents. In *Proceedings of the 42rd European Conference on Information Retrieval (ECIR 2020)*, Lisbon, Portugal, 2020.

Datasets

Biaoyan Fang, Christian Druckenbrodt, Saber A. Akhondi, Camilo Thorne, Timothy Baldwin, Karin Verspoor. RecipeRef Corpus for Modeling Anaphora Resolution from the Procedural Text of Recipes. Mendeley Data, 2022

Biaoyan Fang, Christian Druckenbrodt, Colleen Yeow Hui Shiuan, Sacha Novakovic, Ralph Hössel, Saber A. Akhondi, Jiayuan He, Meladel Mistica, Timothy Baldwin, Karin Verspoor. ChEMU-Ref dataset for Modeling Anaphora Resolution in the Chemical Domain. *Mendeley Data*, 2021

SCHOLARSHIPS AND AWARDS

2022	1st Place, ALTA Shared Task 2022
2021	2nd Place, ALTA Shared Task 2021
2018-Present	Melbourne Research Scholarship
2017	1st Class Scholarship (Top 5% at school)
2017	1st Prize, The 26th Software Design Competition, Guangdong
2016	1st Class Scholarship (Top 5% at school)
2016	National Scholarship (Top 1% nationwide)
2015	Panasonic Donation Scholarship (Top 1% at school)

Misc

 $\overline{\text{Language: Chinese, English}}$

Primary Coding Language: Python Google Scholar: https://bit.ly/3G0gGQo

Personal Interests: Into fitness, surfing, and tennis. Currently self-teaching keyboard.