# Bohan Zhang

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#### Education

University of Michigan	
Ph.D. in Information Science	Aug 2022 - Present
M.S. in Computer Science and Engineering	Aug 2020 - May 2022
The Ohio State University B.S. in Computer Science and Engineering, Minor in Linguistics	Aug 2017 - May 2020
Xiamen University Major in Computer Science and Technology (Transferred out)	Aug 2015 - July 2017

# Publications & Working Drafts

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- 1. Bohan Zhang, Yixin Wang, Paramveer Dhillon. "Causal Inference for Human-Language Model Collaboration." Forthcoming in the Main Conference of NAACL '24. [Link].
- Kenan Alkiek, Bohan Zhang, David Jurgens. "Classification without (Proper) Representation: Political Heterogeneity in Social Media and Its Implications for Classification and Behavioral Analysis." In *Findings of the Association for Computational Linguistics* (ACL '22), pages 504–522, Dublin, Ireland. Association for Computational Linguistics. [Link].
- Bohan Zhang, Prafulla Kumar Choubey, Ruihong Huang. "Predicting Sentence Deletions for Text Simplification Using a Functional Discourse Structure." In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL '22), pages 255–261, Dublin, Ireland. Association for Computational Linguistics. [Link].
- Yingzi Bu\*, Ruoxi Gao\*, Bohan Zhang\*, Luchen Zhang, Duxin Sun. "CoGT: Ensemble Machine Learning Method and its Application on JAK Inhibitor Discovery." ACS Omega 2023, 8 (14), 13232-13242. [Link].
- 5. Yachuan Liu<sup>\*</sup>, **Bohan Zhang**<sup>\*</sup>, Qiaozhu Mei, Paramveer Dhillon. "Improving Group Distributional Robustness by Learning to Rank." In submission for KDD '24. [Preprint Link].
- 6. Bohan Zhang<sup>\*</sup>, Yachuan Liu<sup>\*</sup>, Qiaozhu Mei, Paramveer Dhillon. "Exploring Group-Level Signals for Robust Many-Domain Generalization." In submission for ECML '24. [Preprint Link].

# **Related Research Experiences**

# Research Assistant, Dhillon's Research Group

- Advisor: Paramveer Dhillon, Yixin Wang
- Project: Dynamic sequence optimization in human-AI collaborative writing.
- Goals: learn a dynamic causal policy a sequence of treatments, which are texts generated by humans, to optimize the quality of texts in human-AI collaborative writing.

# Research Assistant, Dhillon's Research Group

- Advisor: Paramveer Dhillon, Qiaozhu Mei
- Project: Improving group distributional robustness by learning to rank.
- Goals: 1) Disclosing the lack of group robustness of several NLP tasks; 2) Improving the robustness by up-weighting groups according to their performance rank 3) Design generalizable meta-learners to learn the rank of groups directly.

#### Research Assistant, Blablablab Lab

- Advisor: David Jurgens
- Project: Political Heterogeneity in Social Media and Its Implications for Behavioral Analysis.
- Goals: Understanding (1) how the choice in definition of a political user significantly influences behavioral analysis (2) how political users engage and interact with others (2) potential suspicious behavior of users, and (4) how users change their political leanings over time.

# Research Assistant, NLP Lab at Texas A&M University

Sep 2020 - Oct 2021

• Advisor: Ruihong Huang

- Project: Predicting sentence deletions in text simplification via a functional discourse structure
- Goals: 1) Exploring how a functional discourse structure correlated with sentence deletions in document-level simplification 2) Using the structure to improve predicting sentence deletions.

#### Working/Teaching Experiences

Machine Learning Software Engineering, Initium.AI Inc. May 2021 - Aug 2021

• Deploy action sentence detection model for real-world applications with limited labels.

# Instructor Assistant, The Ohio State University Jan 2019 - May 2020

• Course: CSE 2421 - Introduction to Low-Level Programming and Computer Organization

#### Honors & Awards

ACL Student Volunteer Award	May 2022
Dean's List of Distinguished Students	All Semesters
The Ohio State University	
Fujian Calculus Contest third prize	May 2016
Xiamen University, Fujian Province	
College Scholarship	May 2016
Xiamen University	

#### Service

Regular Reviewer for \*CL, WWW, KDD Program Committee Member of WWW 2023

#### Skills

Programming languages

Familiar with Python, C, Matlab; Have knowledge in C#, Java, JavaScript Programming Tools
Pytorch, Linux, OpenGL, WebGL
English Proficiency
TOEFL 107 (R:27, L:27, S:26, W:27)
GRE: V 157, Q 169