

# TIANLE WANG

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## EDUCATION

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### Purdue University

West Lafayette, IN, USA

*Ph.D. in Computer Science*

Starting Aug. 2025

- Incoming Ph.D. student advised by Prof. Hongyuan Mei

### University of California, San Diego (UCSD)

La Jolla, CA, USA

*Master of Science in Data Science*

Sept. 2023 – Mar. 2025

- Advised by Prof. Jingbo Shang
- My research interests lie in natural language processing and broad machine learning
- GPA: 4.0/4.0

### Shanghai Jiao Tong University (SJTU)

Shanghai, China

*Bachelor of Engineering in Computer Science*

Sept. 2019 – Jun. 2023

- Member of **ACM Honors Class**, which is an elite program for top 5% talented students
- GPA: 3.7/4.3

## PUBLICATION

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1. **Tianle Wang**, Zihan Wang, Weitang Liu and Jingbo Shang “WOT-Class: Weakly Supervised Open-world Text Classification”, *CIKM 2023*
2. Zihan Wang\*, **Tianle Wang\***, Dheeraj Mekala and Jingbo Shang “A Benchmark on Extremely Weakly Supervised Text Classification: Reconcile Seed Matching and Prompting Approaches”, *ACL 2023, Findings*
3. Yiyang Zhou\*, Zhaoyang Wang\*, **Tianle Wang\***, Shangyu Xing, Peng Xia, Bo Li, Kaiyuan Zheng, Zijian Zhang, Zhaorun Chen, Wenhao Zheng, Xuchao Zhang, Chetan Bansal, Weitong Zhang, Ying Wei, Mohit Bansal, Huaxiu Yao, “AnyPrefer: An Automatic Framework for Preference Data Synthesis”, *ICLR 2025*
4. Tianxing He, Jingyu Zhang, **Tianle Wang**, Sachin Kumar, Kyunghyun Cho, James Glass and Yulia Tsvetkov “On the Blind Spots of Model-Based Evaluation Metrics for Text Generation”, *ACL 2023*
5. Mengke Zhang, Tianxing He, **Tianle Wang**, Lu Mi, Fatemehsadat Mireshghallah, Binyi Chen, Hao Wang, Yulia Tsvetkov “LatticeGen: A Cooperative Framework Which Hides Generated Text in A Lattice For Privacy-Aware Generation on Cloud”, *NAACL 2024, Findings*

## RESEARCH EXPERIENCE

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### University of North Carolina at Chapel Hill

Chapel Hill, NC, USA

*Research Intern*, advised by **Prof. Huaxiu Yao**

Jun. 2024 – Dec. 2024

- Self-evolving framework for preference data generation
  - Introduced a novel framework Anyprefer, which synthesizes high-quality preference data for foundation models, improving alignment with human values across diverse modalities
  - Implemented a cooperative Markov Game-based feedback mechanism to jointly enhance the quality of generated preference data and improve reward estimation accuracy
  - Accepted by *ICLR 2025* as co-first author

### SLS Lab, Massachusetts Institute of Technology

Cambridge, MA, USA

*Research Intern*, advised by **Prof. James Glass** and **Dr. Tianxing He**

Jul. 2022 – Jan. 2023

- Blindspots in PLM-based NLG Metrics
  - Revealed the lack of robustness in PLM-based NLG metrics (e.g., BERTScore) and created an evaluation system with synthetic data for comprehensive checks
  - Identified biases and flaws in various metrics, proposing solutions to mitigate undesirable behaviors
  - Accepted by *ACL 2023*

- Weakly Supervised Open-world Text Classification
  - Pioneered weakly supervised open-world text classification, revealing limitations of existing methods
  - Proposed WOT-Class, which jointly improves class identification and document classification, achieving an over 20% macro-F1 improvement across datasets
  - Accepted by *CIKM 2023* as first author
- Benchmark for Extremely Weakly Supervised Text Classification
  - Developed a benchmark to compare extremely weakly supervised text classification methods, particularly between representation learning and prompt-based approaches
  - Conducted a thorough analysis of key factors influencing model performance, including dataset characteristics, prompt design strategies, class name and language model selection
  - Accepted by *ACL 2023* as co-first author

## SELECTED HONORS AND AWARDS

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### Irving T. Ho Memorial Scholarship

*One of the 4 winners in SJTU*

2022

### Zhiyuan Honorary Scholarship

*Top 5% in SJTU*

2019 - 2022

### Silver Medal

*Top 150 in The 34th China's National Olympiad in Informatics (NOI)*

2017

## TEACHING EXPERIENCE

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### Reader

Fall 2024

Advanced Data-Driven Text Mining (CSE 291 & DSC 253), *UCSD*

### Teaching Assistant

Spring 2021

Data Structures (CS 152), *SJTU*

### Teaching Assistant

Fall 2020

Great Ideas in Computer Science (CS 163), *SJTU*

## SELECTED PROJECTS

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### 🔗 x-TC

Fall 2023

*Benchmark, Text Classification*

- An implementation of our *ACL* paper
- Built a benchmark for comparing different extremely weakly supervised text classification methods
- User-friendly to edit the framework and incorporate novel methods and datasets

### 🔗 WOT-Class

Spring 2023

*Text Classification, Open-world Learning*

- An implementation of our *CIKM* paper
- Designed an iterative refinement framework that achieved state-of-the-art performance in weakly supervised open-world text classification settings