#### **EDUCATION**

Georgia Institute of Technology

Atlanta, USA

Aug. 2019 - Present

Advisor: Diyi Yang, Mark Riedl

• GPA: 3.72/4.00

PhD in Computer Science

Stanford University Atlanta, USA

Visiting Student Researcher

Sep. 2023 – Present

• Advisor: Diyi Yang

Zhejiang University

Hangzhou, China

B.Eng. in Computer Science and Technology

Sep. 2015 – Jul. 2019

• GPA: 3.86/4.00

Minor in Advanced Honor Class of Engineering Education, Chu Konchen Honors College (40/6,000)

### Research Interest

• Learning with structures for efficient NLP systems (data efficiency, training efficiency).

- Building social/linguistic/commonsense-aware NLP systems.
- Unlocking the ability to solve complex problems for large language models.

## **INTERNSHIP**

Tencent AI (US)

Research Intern

Seattle, USA

May 2023 – Aug 2023

Mentor: Jianshu Chen

Research Topic: Solving Complex Problems via Skills-in-Context Prompting

Amazon Santa Clara, USA

Applied Scientist Intern @ AWS

June 2022 – Jan 2023

Mentor: Aston Zhang, Alex Smola

Research Topic: Parameter Efficient Finetuning, Diffusion Language Model

Allen Institute for AI Seattle, USA

Research Intern @ Mosaic Team

June 2021 – Sep. 2021

- Mentor: Keisuke Sakaguchi, Chandra Bhagavatula, and Yejin Choi
- Research Topic: Compositional Augmentation for Commonsense Question Answering

Microsoft Research Seattle, USA

Researcher @ Microsoft Dynamics 365 AI

Dec. 2020 – May 2021

- Mentor: Dinghan Shen, and Weizhu Chen
- Research Topic: Data Augmentation, Efficient Finetuning

# PUBLICATIONS

1. "Unlearn What You Want to Forget: Efficient Unlearning for LLMs",

Jiaao Chen and Diyi Yang

The 2023 Conference on Empirical Methods on Natural Language Processing. EMNLP 2023

2. "A Cheaper and Better Diffusion Language Model with Soft-Masked Noise",

Jiaao Chen and Diyi Yang

The 2023 Conference on Empirical Methods on Natural Language Processing. EMNLP 2023

3. "Is ChatGPT a General-Purpose Natural Language Processing Task Solver?",

Chengwei Qin, Aston Zhang, Zhuosheng Zhang, Jiaao Chen, Michihiro Yasunaga, and Diyi Yang

The 2023 Conference on Empirical Methods on Natural Language Processing. EMNLP 2023

4. "Mitigating Biases in Hate Speech Detection from A Causal Perspective",

Zhehao Zhang, Jiaao Chen, and Diyi Yang

The 2023 Conference on Empirical Methods on Natural Language Processing. EMNLP (Findings) 2023

5. "Where Does Your News Come From? Predicting Information Pathways in Social Media",

Alexander K Taylor, Nuan Wen, Po-Nien Kung, **Jiaao Chen**, Violet Peng, and Wei Wang Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval. SIGIR 2023

6. "Controllable Conversation Generation with Conversation Structures via Diffusion Models",

Jiaao Chen, and Diyi Yang

The 61th Annual Meeting of the Association for Computational Linguistics (Findings). ACL 2023

7. "Human-in-the-loop Abstractive Dialogue Summarization",

Jiaao Chen, Mohan Dodda, and Diyi Yang

The 61th Annual Meeting of the Association for Computational Linguistics (Findings). ACL 2023

8. "Compositional Data Augmentation for Abstractive Conversation Summarization",

Siru Ouyang, Jiaao Chen, Jiawei Han, and Diyi Yang

The 61th Annual Meeting of the Association for Computational Linguistics. ACL 2023

9. "Parameter-Efficient Fine-Tuning Design Spaces",

Jiaao Chen, Aston Zhang, Xingjian Shi, Mu Li, Alix Smola, and Diyi Yang

11th International Conference on Learning Representations. ICLR 2023

10. "An Empirical Survey of Data Augmentation for Limited Data Learning in NLP",

Jiaao Chen\*, Derek Tam\*, Colin Raffel, Mohit Bansal, and Diyi Yang

Transactions of the Association for Computational Linguistics. TACL

11. "When FLUE Meets FLANG: Benchmarks and Large Pretrained Language Model for Financial Domain", Raj Sanjay Shah, Kunal Chawla, Dheeraj Eidnani, Agam Shah, Wendi Du, Sudheer Chava, Natraj Raman, Charese Smiley, **Jiaao Chen**, and Diyi Yang

The 2022 Conference on Empirical Methods on Natural Language Processing. EMNLP 2022

12. "E-VALUE: Understanding Dialect Disparity in NLU",

Caleb Ziems\*, Jiaao Chen\*, Camille Harris, Jessica Anderson, and Diyi Yang

The 60th Annual Meeting of the Association for Computational Linguistics. ACL 2022

13. "Focus on the Action: Learning to Highlight and Summarize Jointly for Email To-Do Items Summarization", Kexun Zhang, **Jiaao Chen**, Diyi Yang,

The 60th Annual Meeting of the Association for Computational Linguistics. ACL 2022

14. "Leveraging Expert Guided Adversarial Augmentation For Improving Generalization in Named Entity Recognition", Aaron Reich, Jiaao Chen, Aastha Agrawal, Yanzhe Zhang, Diyi Yang,

The 60th Annual Meeting of the Association for Computational Linguistics (Findings). ACL 2022

15. "Simple Conversational Data Augmentation for Semi-supervised Abstractive Dialogue Summarization", **Jiaao Chen**, Divi Yang,

The 2021 Conference on Empirical Methods on Natural Language Processing. EMNLP 2021

16. "HiddenCut: Simple Data Augmentation for Natural Language Understanding with Better Generalization", **Jiaao Chen**, Dinghan Shen, Weizhu Chen, and Diyi Yang,

The 59th Annual Meeting of the Association for Computational Linguistics. ACL 2021

17. "Structure-Aware Abstractive Conversation Summarization via Discourse and Action Graphs", **Jiaao Chen**, Divi Yang,

2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics. NAACL 2021

18. "Continual Learning for Text Classification with Information Disentanglement Based Regularization",

Yufan Huang, Yanzhe Zhang, Jiaao Chen, Xuezhi Wang and Diyi Yang,

2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics. NAACL 2021

19. "Weakly-Supervised Hierarchical Models for Predicting Persuasive Strategies in Good-faith Textual Requests", **Jiaao Chen**, Diyi Yang,

The Thirty-Fifth AAAI Conference on Artificial Intelligence. AAAI 2020

20. "Multi-View Sequence-to-Sequence Models with Conversational Structure for Abstractive Dialogue Summarization", **Jiaao Chen**, Divi Yang,

The 2020 Conference on Empirical Methods on Natural Language Processing. EMNLP 2020

21. "Local Additivity Based Data Augmentation for Semi-supervised NER",

Jiaao Chen\*, Zhenghui Wang\*, Ran Tian, Zichao Yang and Diyi Yang,

The 2020 Conference on Empirical Methods on Natural Language Processing. EMNLP 2020

22. "Examining the Ordering of Rhetorical Strategies in Persuasive Requests", Omar Shaikh, **Jiaao Chen**, Jon Saad-Falcon, Polo Chau and Diyi Yang,

The 2020 Conference on Empirical Methods on Natural Language Processing (Findings). EMNLP 2020

23. "MixText: Linguistically-Informed Interpolation of Hidden Space for Semi-Supervised Text Classification",

Jiaao Chen, Zichao Yang, Diyi Yang,

The 58th annual meeting of the Association for Computational Linguistics (ACL). ACL 2020

24. "Semi-supervised Models via Data Augmentation for Classifying Interactive Affective Responses",

Jiaao Chen\*, Yuwei Wu\*, Diyi Yang,

AAAI Workshop on Affective Content Analysis, 2020

25. "Let's Make Your Request More Persuasive: Modeling Persuasive Strategies via Semi Supervised Neural Nets on Crowdfunding Platforms",

Diyi Yang\*, Jiaao Chen\*, Zichao Yang, Dan Jurafsky, Eduard Hovy,

The 17th Annual Conference of the North American Chapter of the Association for Computational Linguistics. NAACL 2019.

26. "Incorporating Structured Commonsense Knowledge in Story Completion",

Jiaao Chen, Jianshu Chen, Zhou Yu,

The Thirty-Fourth AAAI Conference on Artificial Intelligence. AAAI 2019

#### TEACHING EXPERIENCE

# School of Computer Science, Georgia Institute of Technology

Atlanta, USA

Teaching Assistant at NLP: CS-4650/7650 with Professor Divi Yang

Jan. 2020 – May. 2020

# Department of Computer Science, Zhejiang University

Hangzhou, China

Teaching Assistant at Computer Organization with Professor Qingsong Shi

Mar. 2018 – Jun. 2018

#### ADVISING

## **Master Students**

- Aaron Reich (Master, 2021 Spring 2022 Fall)
- Aastha Agrawa (Master, 2021 Spring 2022 Fall)
- Yufan Huang (Master, 2020 Fall 2021 Spring)
- Kunal Chawla (Master, 2020 Fall 2021 Fall)
- Nikhil Gupta (Master, 2020 Fall 2021 Spring)

# **Undergraduate Students**

- Zhehao Zhang (Undergraduate, 2022 Summer –)
- Siru Ouyang (Undergraduate, 2022 Summer 2023 Spring)
- Mohan Dodda (Undergraduate, 2022 Summer 2023 Spring)
- Wenna Qin (Undergraduate, 2022 Fall 2023 Spring)
- Kexun Zhang (Undergraduate, 2021 Spring 2022 Spring)
- Dheeraj Eidnani (Undergraduate, 2020 Fall 2022 Spring)
- Yanzhe Zhang (Undergraduate, 2020 Fall 2021 Spring)
- Omar Shaikh (Undergraduate, 2019 Fall 2020 Spring)
- Jon Saad-Falcon (Undergraduate, 2019 Fall 2020 Spring)

## SERVICE EXPERIENCE

# Conference/Journal Reviewing Activities

- ACL 2021, 2022, 2023
- EMNLP 2020, 2021,2022,2023
- NAACL 2021
- IJHCI 2023
- CHI 2023
- **UIST 2022**
- WWW 2021
- AAAI 2020, 2021
- ICLR 2022

## **Conference Volunteer**

ACL 2020

# Georgia Tech NLP Seminar

• Organizer (2019 – 2021)

#### RECENT PRESENTATION & INVITED TALKS

- "An Empirical Survey of Data Augmentation for Limited Data Learning in NLP". Conference Talk at ACL 2023.
- "Human-in-the-loop Abstractive Dialogue Summarization". Invited Talk at Adobe 2023.
- "Simple Conversational Data Augmentation for Semi-supervised Abstractive Dialogue Summarization". Conference Talk at EMNLP 2021.
- "HiddenCut: Simple Data Augmentation for Natural Language Understanding with Better Generalization".
   Conference Talk at ACL 2021.
- "Structure-Aware Abstractive Conversation Summarization via Discourse and Action Graphs". Conference Talk at NAACL 2021.
- "Conversation Summarization with Multiple Dialogue Views". Invited Talk at Google NLP, Nov. 13th, 2020.
- "Multi-View Sequence-to-Sequence Models with Conversational Structure for Abstractive Dialogue Summarization". Conference Talk at EMNLP 2020.
- "Local Additivity Based Data Augmentation for Semi-supervised NER". Conference Talk at EMNLP 2020.
- "MixText: Linguistically-Informed Interpolation of Hidden Space for Semi-Supervised Text Classification". Conference Talk at ACL 2020.
- "Incorporating Structured Commonsense Knowledge in Story Completion". Conference Talk at AAAI 2019.

#### SELECTED AWARDS AND HONORS

Outstanding Undergraduate Thesis, Zhejiang University.	2019
Honorable Mention at MCM/ICM Contest.	2017
Academic Physics Contest at Zhejiang University, fourth place.	2017
<ul> <li>ACEE Honor Class at Chu Konchen Honors College, Zhejiang University (40/6,000).</li> </ul>	2016
Scholarship for Academic Achievement at Zhejiang University.	2016
<ul> <li>Scholarship for All-around Achievement at Zhejiang University.</li> </ul>	2016
ACM School Trial at Zhejiang University, third prize.	2016

# ADDITIONAL INFORMATION

# Technology and Language Skills:

- Programming Languages: C/C++, Python, Verilog, Matlab, Labview, SQL, C#, Lex/Yacc.
- Development Skills: Pytorch, Tensorflow, OpenCV, QT.

## **Interests:**

• Piano (Level 10 Certificate), Basketball.