

# JUSTIN CHIH-YAO CHEN

✉ [cychen@cs.unc.edu](mailto:cychen@cs.unc.edu)  <https://dinobby.github.io>  <https://linkedin.com/in/chih-yao-chen/>  [Google Scholar](#)

## EDUCATION

---

### The University of North Carolina at Chapel Hill

*Ph.D. student in Computer Science.*

**Chapel Hill, NC**

*Aug. 2023 – Present*

### National Taiwan University

*Master of Data Science. GPA: 4.10 / 4.30*

**Taipei, Taiwan**

*Sep. 2020 – Jun. 2022*

### National Cheng Kung University

*Bachelor of Statistics, Double Major in Computer Science. GPA: 3.93 / 4.30*

**Tainan, Taiwan**

*Sep. 2016 – Jun. 2020*

## EXPERIENCE

---

### MURGe-Lab NLP Group

*Research Assistant (Advisor: [Mohit Bansal](#))*

Improving LLM reasoning ability and efficiency, multi-agent collaboration for reasoning

**Chapel Hill, NC**

*Aug. 2023 – Present*

### Google Cloud AI Research

*Student Researcher (Advisors: [Chen-Yu Lee](#), [Zifeng Wang](#))*

Enhancing the reasoning of LLMs by strengthening their reverse-thinking capabilities

**Sunnyvale, CA**

*Jun. 2024 – Sep. 2024*

### Institute of Information Science, Academia Sinica

*Research Assistant (Advisor: [Lun-Wei Ku](#))*

Work on attractive headline generation, representation learning and vision question generation

**Taipei, Taiwan**

*Jul. 2020 – Dec. 2022*

### Institute of Data Science, National Cheng Kung University

*Research Assistant (Advisor: [Cheng-Te Li](#))*

Work on zero-shot relation extraction and anomaly detection

**Tainan, Taiwan**

*Jun. 2018 – Jun. 2020*

## PUBLICATIONS (\*CO-FIRST AUTHOR)

---

- [1] **Justin Chih-Yao Chen**, Zifeng Wang, Hamid Palangi, Rujun Han, Sayna Ebrahimi, Long Le, Vincent Perot, Swaroop Mishra, Mohit Bansal, Chen-Yu Lee, Tomas Pfister “Reverse Thinking Makes LLMs Stronger Reasoners.” Submitted to NAACL 2025.
- [2] **Justin Chih-Yao Chen**, Archiki Prasad, Swarnadeep Saha, Elias Stengel-eskin and Mohit Bansal. “MAGICoRe: Multi-Agent, Iterative, Coarse-to-Fine Refinement for Reasoning.” Arxiv Preprint 2024. [\[Paper\]](#) [\[Code\]](#)
- [3] **Justin Chih-Yao Chen**, Swarnadeep Saha and Mohit Bansal. “ReConcile: Round-Table Conference Improves Reasoning via Consensus among Diverse LLMs.” The 62st Annual Meeting of the Association for Computational Linguistics (**ACL 2024**). [\[Paper\]](#) [\[Code\]](#)
- [4] **Justin Chih-Yao Chen\***, Swarnadeep Saha\*, Elias Stengel-eskin and Mohit Bansal. “MAGDI: Structured Distillation of Multi-Agent Interaction Graphs Improves Reasoning in Smaller Language Models.” The Forty-Second International Conference on Machine Learning (**ICML 2024**). [\[Paper\]](#) [\[Code\]](#)
- [5] Yen-Wen Lu, **Chih-Yao Chen**, Cheng-Te Li. “Dual Graph Networks with Synthetic Oversampling for Imbalanced Rumor Detection on Social Media.” International World Wide Web Conference (**WWW 2024**). [\[Paper\]](#)
- [6] Nicholas Collin Suwono, **Chih-Yao Chen**, Tun Min Hung, Ting-Hao Kenneth Huang, I-Bin Liao, Yung-Hui Li, Lun-Wei Ku, Shao-Hua Sun. “Location-Aware Visual Question Generation with Lightweight Models.” The 2023 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2023**). [\[Paper\]](#) [\[Code\]](#)
- [7] **Chih-Yao Chen**, Tun-Min Hung, Lun-Wei Ku. “Label-Aware Hyperbolic Embeddings for Fine-grained Emotion Classification.” The 61st Annual Meeting of the Association for Computational Linguistics (**ACL 2023**). [\[Paper\]](#) [\[Code\]](#)

- [8] **Chih-Yao Chen**, Dennis Wu, Lun-Wei Ku. “HonestBait: Forward References for Attractive but Faithful Headline Generation.” The 61st Annual Meeting of the Association for Computational Linguistics (**ACL Findings 2023**). [\[Paper\]](#)
- [9] Yi-Zhan Xu\*, **Chih-Yao Chen\*** and Cheng-Te Li. “SUVR: Search-based Unsupervised Visual Representation Learning.” IEEE International Conference on Acoustics, Speech and Signal Processing 2023 (**ICASSP 2023**). [\[Paper\]](#)
- [10] **Chih-Yao Chen** and Cheng-Te Li. “ZS-BERT: Towards Zero-Shot Relation Extraction with Attribute Representation Learning.” The Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL 2021**). [\[Paper\]](#) [\[Code\]](#)
- [11] Yu-Che Tsai, **Chih-Yao Chen**, Shao-Lun Ma, Pei-Chi Wang, You-Jia Chen, Yu-Chieh Chang, and Cheng-Te Li. “FineNet: A Joint Convolutional and Recurrent Neural Network Model to Forecast and Recommend Anomalous Financial Items.” ACM International Conference on Recommender Systems (**RecSys 2019**). [\[Paper\]](#)

## HONOR & AWARDS

---

<b>College Student Research Creativity Award (Out of 2,689 Research)</b> <i>Ministry of Science and Technology, Taiwan</i>	<b>2020</b>
<b>Honorable Mention Award, Big Data and Business Analysis Competition</b> <i>Department of Finance, National Sun Yat-sen University</i>	<b>2018</b>
<b>Cathay United Bank Undergraduate Scholarship</b> <i>Cathay Life Insurance Company</i>	<b>2017</b>
<b>Academic Excellence Award (Top 10%)</b> <i>Department of Statistics, National Cheng Kung University</i>	<b>2016</b>

## REFERENCE

---

**Mohit Bansal** (mbansal@cs.unc.edu)  
*Department of Computer Science, UNC Chapel Hill*  
**Relationship:** PhD advisor, director of the Multimodal Understanding, Reasoning, and Generation for Language Lab

**Chen-Yu Lee** (chenyulee@google.com)  
*Cloud AI Research, Google*  
**Relationship:** internship mentor, staff research scientist and manager

**Lun-Wei Ku** (lwku@iis.sinica.edu.tw)  
*Institute of Information Science, Academic Sinica*  
**Relationship:** master’s advisor, director of the Natural Language Processing and Sentiment Analysis Lab

**Cheng-Te Li** (chengte@ncku.edu.tw)  
*Institute of Data Science, National Cheng Kung University*  
**Relationship:** undergraduate advisor, director of the Networked Artificial Intelligence Lab