# Xintong Wang

Last update: August 26th, 2023

# EDUCATION

University of Hamburg

Hamburg, Germany

Ph.D. in Computer Science, Advisor: Prof. Dr. Chris Biemann

May 2020 - Oct. 2024

- Thesis: "Multimodal Representation Learning: Understanding and Leveraging"

South China University of Technology

Guangzhou, China

M.S. in Computer Science, GPA: 3.70/4.00

Sept. 2016 - July 2019

- Thesis: "Research on Abstractive Summarization"

South China University of Technology

Guangzhou, China

B.S. in Computer Science, GPA: 3.40/4.00

Sept. 2012 - June 2016

- Thesis: "Spatio-temporal Data Storage and Mining Systems"

# EXPERIENCE

### The Chinese Academy of Sciences

Beijing, China

Visiting Researcher, Advisors: Prof. Dr. Xingshan Li

Dec. 2022 - Mar. 2023

- Language Models
- Understand Language Models from Cognition Perspective: Regression and Prediction

#### The Hong Kong Polytechnic University

Hong Kong, China

Research Assistant, Advisor: Prof. Dr. Wenjie Li

Oct. 2018 - Aug. 2019

- Summarization
- Fusing External Language Models in the Abstractive Summarization

#### The Chinese Academy of Sciences

Shenzhen, China

Visiting Student Researcher, Advisor: Prof. Dr. Min Yang

Mar. 2018 - Oct. 2018

- Summarization
- Generative Adversarial Network for Abstractive Text Summarization with Multi-task Constraint

#### Publications

- 1. **Xintong Wang**, Xiaoyu Li, Xingshan Li, and Chris Biemann, "Probing Large Language Models from A Human Behavioral Prospective", *Under Review. June 2023*
- 2. Xintong Wang, Xiaoyu Li, Liang Ding, Sanyuan Zhao, and Chris Biemann, "Using Unsupervised Dual Constraint Contrastive Learning for Cross-modal Retrieval", Proceedings of the 26th European Conference on Artificial Intelligence (ECAI). September 2023
- 3. Anton Orell Wiehe, Florian Schneider, Sebastian Blank, **Xintong Wang**, Hans-Peter Zorn, and Chris Biemann, "Language over Labels: Contrastive Language Supervision Exceeds Purely Label-Supervised Classification Performance on Chest X-Rays", Proceedings of the 2022 Asia-Pacific Chapter of the Association for Computational Linguistics: Student Research Workshop (AACL-IJCNLP SRW). November 2022
- 4. **Xintong Wang\***, Florian Schneider\*, Özge Alacam, Prateek Chaudhury, Chris Biemann, "MOTIF: Contextualized Images for Complex Words to Improve Human Reading", *Proceedings of the 13th Edition of its Language Resources and Evaluation Conference (LREC)*, June 2022

- 5. Florian Schneider, Özge Alacam, **Xintong Wang**, and Chris Biemann, "Towards Multi-Modal Text-Image Retrieval to improve Human Reading", *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Student Research Workshop (NAACL SRW). June 2021*
- Min Yang, Xintong Wang, Yao Lu, Jianming Lv, Ying Shen, and Chengming Li, "Plausibility-promoting Generative Adversarial Network for Abstractive Text Summarization with Multi-task Constraint", Information Sciences, 521 (2020): 46-61
- 7. Jianming Lv, and **Xintong Wang**, "Cross-dataset Person Re-identification using Similarity Preserved Generative Adversarial Networks", Proceedings of the 11th International Conference on Knowledge Science, Engineering and Management (KSEM), August 2018
- 8. Jianming Lv, Qing Li, Qinghui Sun, and **Xintong Wang**, "T-CONV: A Convolutional Neural Network for Multi-scale Taxi Trajectory Prediction", *Proceedings of the 2018 IEEE International Conference on Big Data and Smart Computing (bigcomp)*, January 2018
- 9. Jianming Lv, **Xintong Wang**, Fengtao Huang, Junjie Yang, Tianfeng Wu, and Qifa Yan, "TREST: A Hadoop Based Distributed Mobile Trajectory Retrieval System", *Proceedings of the 2016 IEEE First International Conference on Data Science in Cyberspace (DSC)*, June 2016

### TEACHING

Project Mentor at University of Hamburg
 Master Project Web Interfaces for Language Processing Systems

 Co-instructor at University of Hamburg
 Winter 2020

Master Course Natural Language Processing for Web

Topic: Reading Material Analysis for Second Language Learners

# SUPVERSION

Master Theses	
• Fabian Meyer MSc, at Universität Hamburg  Thesis: On the Potential and Limists of Zero-Shot Out-of-Distribution of Detection	16.04.2023
• Anton Orell Wiehe MSc, at Universität Hamburg Thesis: Domain Adaptation for Multi-Modal Foundation Models	10.07.2022
• Matthew Ng Cher-Wai MSc, at Universität Hamburg  Thesis: Multi-modal Fictional Backstory Generation using Transformer-Aspect-Backstory Generator	06.06.2022
• Ankit Srivastava MSc, at Universität Hamburg  Thesis: Complex Word Identification for Language Learners	13.03.2022
• Florian Schneider MSc, at Universität Hamburg Thesis: Self-Supervised Multi-Modal Text-Image Retrieval Methods to Improve Human Reading	27.07.2022
Research Assistants	
• Jingheng Pan MSc, at Technische Universität Berlin, Hamburg, Germany Topic: Probing Large Language Models	01.09.2022
• Xiaoyu Li MSc, at Technische Universität Berlin, Berlin, Germany Topic: Dual Constraint Cross-modal Retrieval	01.10.2022
• Prateek Chaudhury BSc, at Indian Institute of Technology Delhi, New Delhi, India (Remote Intern)	31.08.2021

# SKILLS LANGUAGES

- Programming Languages: Python, Java, C++, C
- Toolkit for Deep Learning: PyTorch, TensorFlow, Numpy, Pandas, Matplotlib, NLTK, spaCy, Scikit-learn

• Chinese: Native speaker

• English: Highly proficient in spoken and written (C1)

• German: Basic communication skills (A2)

# **PROJECTS**

• SFB TRR 169 Project C7: Crossmodal Learning for Improving Human Reading (Final Funding)
• Funded by German Research Foundation: 01.2024 - 12.2024

SFB TRR 169 Project C7: Crossmodal Learning for Improving Human Reading (Phase II)
Funded by German Research Foundation: 05.2020 - 12.2023

# SCHOLARSHIPS AND AWARDS

• 26th European Conference on Artificial Intelligence ECAI 2023, Travel Grant Award	2023
• South China University of Technology, Graduate Research Scholarships	2016 – 2019
• South China University of Technology, Bachelor Scholarships	2013 – 2016
• Tencent Research Scholarship	2016-2016
• Honorable Mention of Mathematical Contest In Modeling Certificate of Achievement	2015

Professional Activities	
• Co-organizer: CLEF-2024 SemEval Task  Multilingual Text Detoxification	2023
• Invited talk at the University of Wuppertal Probing Large Language Models (LLMs) for Predicting Human Behavioral Data	2023
• Conference Reviewer: EMNLP, IJCNLP-AACL, ACL, ACM MM, ECAI Multimodal Learning, Sentiment Analysis, Stylistic Analysis, and Argument Mining	2023
• Conference Reviewer: ACL, EMNLP, AACL-IJCNLP, EACL Cognitive Modeling and Psycholinguistics, Summarization, Multimodal	2022
• Conference Reviewer: ACL, NAACL, IJCAI/Senior Program Committee Summarization, Generation, Crossmodal Learning	2021
• Conference Reviewer: ACL, EMNLP, AACL, IJCNLP Summarization, Generation, Multidisciplinary	2020
• Conference Reviewer: EMNLP, NLPCC Summarization, Conversational Bot/QA/IR/Dialogue	2019
• Reviewer for ACL Rolling Review (ARR)  Crossmodal Learning, Machine Translation	2021-2023
• Reviewer for Journal TALLIP  Natural Language Processing	2020-2021
• Reviewer for Journal IEEE Access  Computer Vision, Natural Language Processing	2020-2021