Xintong Wang

Email: xintong.wang@uni-hamburg.de
Contact (DE): +49 15257231861
Contact (CN): +86 13530901024

EDUCATION

University of Hamburg — Hamburg, Germany
Ph.D. in Computer Science, Advisor: Prof. Dr. Chris Biemann — Apr. 2021 - Dec. 2025
- Thesis: "Multimodal Representation Learning: Understanding and Leveraging"
- Expected Grade: summa cum laude (with distinction)

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

Hub of Computing & Data Science, University of Hamburg — Hamburg, Germany
Researcher and Consultant, Director: Prof. Dr. Chris Biemann — Jan. 2025 - Current
- Large Vision-Language Models
- Specializing in Vision and Multimodal Learning, Fostering Interdisciplinary Research across Modalities

AI Business, Alibaba International Digital Commerce Group — Hangzhou, China
Research Intern, Mentor: Dr. Longyue Wang, Senior Algorithm Expert — Dec. 2024 - Dec. 2025
- Large Vision-Language Models
- Benchmarking Multilingual Vision-Language Translation and Evaluation Protocols

The Chinese Academy of Sciences — Beijing, China
Visiting Researcher, Advisor: Prof. Dr. Xingshan Li — Dec. 2022 - Mar. 2023
- Language Models
- Understand Language Models from Cognition Perspective: Regression and Prediction

Language Technology Group, University of Hamburg — Hamburg, Germany
Research Associate, Advisor: Prof. Dr. Chris Biemann — May 2020 - Current
- Cross-modal Learning
- Cross-modal Learning for Improving Human Learning to Read

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. Yunxin Li, Zhenyu Liu, Zitao Li, Xuanyu Zhang, Zhenran Xu, Xinyu Chen, Haoyuan Shi, Shenyuan Jiang, **Xintong Wang**, Jifang Wang, Shouzheng Huang, Xinping Zhao, Borui Jiang, Lanqing Hong, Longyue Wang, Zhuotao Tian, Baoxing Huai, Wenhan Luo, Zheng Zhang, Baotian Hu, and Min Zhang, "Perception, Reason, Think, and Plan: A Survey on Large Multimodal Reasoning Models", *ACM Computing Surveys Under Review*, October 2025. [LVLM Multimodal&Reasoning]

2. **Xintong Wang**, Jingheng Pan, Yixiao Liu, Xiaohu Zhao, Chenyang Lyu, Minghao Wu, Chris Biemann, Longyue Wang, Linlong Xu, Weihua Luo, and Kaifu Zhang, "Rethinking Multilingual Vision-Language Translation: Dataset, Evaluation, and Adaptation", *ACL ARR Under Review*. October 2025 [LVLM Multimodal&Multilingual]

3. **Xintong Wang**, Jingheng Pan, Yixiao Liu, Longyue Wang, and Chris Biemann, "Bridging Visual Concepts: Conceptual Alignment for Ambiguity Resolution in Multimodal Translation", *ACL ARR Under Review*. October 2025 [LVLM Multimodal&Multilingual]

4. Yanfang Zhou, Yuntao Liu, Xiaodong Li, Tianyu Chen, Yongqiang Zhao, Qingyu Wu, **Xintong Wang**, Jinlong Tian, Zhenyu Li, and Xinhai Xu, "DC³PA: A Dual-Chain Cognitive Control-Driven Planning Agent for Open-World Environments", *AAAI Under Review*. August 2025 [LLM Agent]

5. Minghao Wu, Weixuan Wang, Sinuo Liu, Huifeng Yin, **Xintong Wang**, Yu Zhao, Chenyang Lyu, Longyue Wang, Weihua Luo, and Kaifu Zhang, "The Bitter Lesson Learned from 2,000+ Multilingual Benchmarks", *ACL ARR Under Review*. July 2025 [LLM Multilingual]

6. **Xintong Wang**, Yixiao Liu, Jingheng Pan, Liang Ding, Longyue Wang, and Chris Biemann, "Chinese Toxic Language Mitigation via Sentiment Polarity Consistent Rewrites", *The 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. August 2025 ***(Core Rank A* and CCF-B)*** [LLM Benchmark&Safety]

7. **Xintong Wang**, Jingheng Pan, Liang Ding, Longyue Wang, Longqin Jiang, Xingshan Li, and Chris Biemann, "*Cog-Steer*: Cognition-Inspired Selective Layer Intervention for Efficiently Steering Large Language Models", *Findings of the Association for Computational Linguistics (ACL)*. August 2025 ***(Core Rank A* and CCF-A)*** [LLM Interpretability&Efficiency&Safety]

8. Yanfang Zhou, Yuntao Liu, Xiaodong Li, Yongqiang Zhao, **Xintong Wang**, Qingyu Wu, Jinlong Tian, Zhenyu Li, Xinhai Xu, "Metagent-P: A Neuro-Symbolic Planning Agent with Metacognition for Open Worlds", *Findings of the Association for Computational Linguistics (ACL)*. August 2025 ***(Core Rank A* and CCF-A)*** [LLM Agent]

9. Yanfang Zhou, Xiaodong Li, Yuntao Liu, Yongqiang Zhao, **Xintong Wang**, Zhenyu Li, Jinlong Tian, Xinhai Xu, "M2PA: A Multi-Memory Planning Agent for Open Worlds Inspired by Cognitive Theory", *Findings of the Association for Computational Linguistics (ACL)*. August 2025 ***(Core Rank A* and CCF-A)*** [LLM Agent]

10. Daryna Dementieva, Daniil Moskovskiy, Nikolai Babakov, Abinew Ali Ayele, Naquee Rizwa, Florian Schneider, **Xintong Wang**, Seid Muhie Yimam, Dmitry Ustalov, Elisei Stakovskii, Alisa Smirnova, Ashraf Elnagar, Animesh Mukherjee and Alexander Panchenko, "Multilingual and Explainable Text Detoxification with Parallel Data", *Proceedings of the 31st International Conference on Computational Linguistics (COLING)*. January 2025 ***(Core Rank A and CCF-B)*** [LLM Multilingual&Safety]

11. **Xintong Wang**, Jingheng Pan, Liang Ding, and Chris Biemann, "Mitigating Hallucinations in Large Vision-Language Models with Instruction Contrastive Decoding", *Findings of the Association for Computational Linguistics (ACL)*. August 2024 ***(Core Rank A* and CCF-A)*** [LVLM Hallucination]

12. Abinew Ali Ayele, Nikolay Babakov, Janek Bevendorff, Xavier Bonet Casals, Berta Chulvi, Daryna Dementieva, Ashaf Elnagar, Dayne Freitag, Maik Fröbe, Damir Korenčić, Maximilian Mayerl, Daniil Moskovskiy, Animesh Mukherjee, Alexander Panchenko, Martin Potthast, Francisco Manuel Rangel, Naquee Rizwan, Paolo Rosso, Florian Schneider, Alisa Smirnova, Efstathios Stamatatos, Elise Stakovskii, Benno Stein, Mariona Taulé, Dmitry Ustalov, **Xintong Wang**, Matti Wiegmann, Seid Muhie Yimam and Eva Zangerle (*authors are listed in alphabetical order*), "Overview of PAN 2024: Multi-Author Writing Style Analysis, Multilingual Text Detoxification, Oppositional Thinking Analysis, and Generative AI Authorship Verification", *Proceedings of the 15th International Conference of the Cross-Language Evaluation Forum for European Languages (CLEF 2024)*. September 2024 [LLM Benchmark&Multilingual&Safety]

13. Daryna Dementieva, Daniil Moskovskiy, Nikolai Babakov, Abinew Ali Ayele, Naquee Rizwa, Florian Schneider, **Xintong Wang**, Seid Muhie Yimam, Dmitry Ustalov, Elisei Stakovskii, Alisa Smirnova, Ashraf Elnagar, Animesh Mukherjee and Alexander Panchenko, "Overview of the Multilingual Text Detoxification Task at Pan 2024", *Proceedings of the 2024 Working Notes of the Conference and Labs of the Evaluation Forum (CLEF 2024). September 2024* [**LLM Benchmark&Multilingual&Safety**]

14. **Xintong Wang**, Xiaoyu Li, Xingshan Li, and Chris Biemann, "Probing Large Language Models from A Human Behavioral Prospective", *Proceedings of the Bridging Neurons and Symbols for Natural Language Processing and Knowledge Graphs Reasoning at 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (NeusymBridge at LREC-COLING). May 2024* [**LLM Interpretability**]

15. **Xintong Wang**, Xiaoyu Li, Liang Ding, Sanyuan Zhao, and Chris Biemann, "Using Self-Supervised Dual Constraint Contrastive Learning for Cross-modal Retrieval", *Proceedings of the 26th European Conference on Artificial Intelligence (ECAI). September 2023* **(Core Rank A and CCF-B)** [**LVLM Efficiency**]

16. 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 (SRW at AACL-IJCNLP). November 2022* [**LVLM Efficiency**]

17. **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* **(Core Rank B)** [**LVLM Benchmark&Interpretability**]

18. 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 (SRW at NAACL). June 2021* [**LVLM Interpretability**]

19. 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* **(Core Rank A and JCR-Q1)** [**NLP Summarization**]

20. 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* **(Core Rank B)** [**CV GAN**]

21. 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* [**CV Spatial-temporal**]

22. Haitao Yang, Jianming Lv, Fei Xu, **Xintong Wang**, Yilin Huang, Lanting Xia, and Xuewu Zhu, "Regression Approach for Optimal Purchase of Hosts Cluster in Fixed Fund for Hadoop Big Data Platform", *Proceedings of the 19th International Conference on Smart City, Transportation and Buildings, June 2017* [**Distributed System**]

23. 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* [**Distributed Computing**]

24. Haibiao Lin, Jianming Lv, Can Yang, Miaoyi Deng, Kaitao Wang, and **Xintong Wang**, "GPS Trajectory Mining: A Survey", *Journal of Computational Information Systems,16 (2014): 6947–6956* [**Spatial-temporal**]

INVITED TALKS

- Multimodal Representation Learning: Understanding and Leveraging 03.2025
  Hosts: Prof. Dr. Jianming Lv, South China University of Technology
- Mitigating Hallucinations in Large Vision-Language Models (LVLMs) 07.2024
  Online Talk
- Probing Large Language Models from A Human Behavioral Perspective 05.2024

Hosts: Dr. Tiansi Dong, NeusymBridge@LREC-Coling 2024

- Probing Large Language Models (LLMs) for Predicting Human Behavioral Data   05.2023
  Hosts: Prof. Dr. Markus Hofmann and Prof. Dr. Ralph Radach, Universität Wuppertal

TEACHING

- **Lecturer** at University of Hamburg   Winter 2025
  Master Course: Exercises Natural Language Processing and the Web
- **Lecturer** at University of Hamburg   Summer 2025
  Master Course: Exercises Statistical Methods of Language Technology
- **Teaching Assistant** at Max Planck Institute   Winter 2024
  Bachelor, Masters and PhD Course: Introduction to Python for Research
- **Co-Instructor** at University of Hamburg   Winter 2024
  Bachelor Course: Deep Learning for Natural Language Processing
- **Project Mentor** at University of Hamburg   Summer 2022&2023
  Master Project: Web Interfaces for Language Processing Systems
- **Co-Lecturer** at University of Hamburg   Winter 2020
  Master Course: Natural Language Processing and the Web

SUPERVISION

Co-Supervised Doctoral Students

- **Jingheng Pan** PhD Candidate, at Universität Hamburg, Hamburg, Germany   01.10.2025 - Current
  Area: LVLM Post-Training, Reasoning
- **Yixiao Liu** PhD Candidate, at Universität Hamburg, Hamburg, Germany   01.01.2026 - Current
  Area: LLM Post-Training, Interpretability, Cognitive Analysis

Master Theses

- **Longqin Jiang** MSc, at Universität Hamburg   01.12.2025
  Thesis: Improving In-Image Text Understanding in Large Vision-Language Models
- **Jingheng Pan** MSc, at Universität Hamburg   30.08.2025
  Thesis: Ambiguity Resolution in Multimodal Machine Translation
- **Xiaoyu Li** MSc, at Technische Universität Berlin & Beijing Institute of Technology   06.03.2024
  Thesis: Methods towards Understanding and Application of Foundation Models
- **Fabian Meyer** MSc, at Universität Hamburg   16.04.2023
  Thesis: On the Potential and Limits of Zero-Shot Out-of-Distribution of Detection
- **Anton Orell Wiehe** MSc, at Universität Hamburg   10.07.2022
  Thesis: Domain Adaptation for Multi-Modal Foundation Models
- **Matthew Ng Cher-Wai** MSc, at Universität Hamburg   06.06.2022
  Thesis: Multi-Modal Fictional Backstory Generation using Transformer-Aspect-Backstory Generator
- **Ankit Srivastava** MSc, at Universität Hamburg   13.03.2022
  Thesis: Complex Word Identification for Language Learners
- **Florian Schneider** MSc, at Universität Hamburg   27.07.2021
  Thesis: Self-Supervised Multi-Modal Text-Image Retrieval Methods to Improve Human Reading
  GSCL Best Master's Thesis Award 2023

Research Assistants & Interns

- **Jingfan Xin** MSc, at Universität Hamburg, Hamburg, Germany   15.06.2025 - Current
  Topic: Large Reasoning Models
- **Longqin Jiang** MSc, at Universität Hamburg, Hamburg, Germany   01.05.2024 - Current
  Topic: Enhancing Multilingual Capabilities in Large Vision Language Models
- **Yixiao Liu** MSc, at Nanyang Technological University, Singapore City, Singapore   01.10.2023 - 31.12.2025
  Topic: Mitigating Biases in Chinese Toxic Language
- **Jingheng Pan** MSc, at Universität Hamburg, Hamburg, Germany   15.09.2023 - 30.09.2025
  Topic: Mitigating Hallucinations in Large Vision-Language Models
- **Xiaoyu Li** MSc, at Technische Universität Berlin, Berlin, Germany   01.10.2022 - 30.09.2023
  Topic: Dual Constraint Contrastive in Cross-modal Retrieval
- **Prateek Chaudhury** BSc, at Indian Institute of Technology Delhi, New Delhi, India   01.06.2021 - 31.08.2021
  Topic: Reading Material Analysis for Second Language Learners

PROJECTS

- (Pending) SPP: *Advancing Human-Centric Interpretability on Large Language Models*
  Submitted to German Research Foundation (DFG), 03.2026 – 02.2030, *PI (Upon Approval)*

- (Pending) RTG: *Human-AI Synergy: Methods, Models, and Mechanisms for Synergetic Collaboration between Human and Artificial Intelligence*
  Submitted to German Research Foundation (DFG), 01.2026 – 12.2029, *Co-PI (Upon Approval)*

- SFB TRR 169 Project C7: *Crossmodal Learning for Improving Human Reading*
  Funded by German Research Foundation (DFG): 05.2020 - 12.2024, *Doctoral Researcher (Core Participant)*

SCHOLARSHIPS AND AWARDS

26th European Conference on Artificial Intelligence (ECAI 2023), Travel Grant	2023
The 58th Annual Meeting of the Association for Computational Linguistics (ACL 2020), D&I Grant	2020
South China University of Technology, Graduate Research Scholarships	2016–2019
South China University of Technology, Bachelor Scholarships	2013–2016
Tencent Research Scholarship	2016
Outstanding Winner of Pearl River Delta+ National College Students Innovation Contest, Team Leader	2015
Honorable Mention of International Mathematical Contest In Modeling Certificate of Achievement	2015

PROFESSIONAL ACTIVITIES

- Funding Reviewer: Vienna Science and Technology Fund   2025
  Vienna Research Groups for Young Investigators
- Organizer and Task Committee: POLAR@SemEval 2026   2025
  Attitude Polarization Detection in Multilingual Text
- Organizer and Task Committee: CLEF-2025 SemEval Task   2025
  Multilingual Text Detoxification
- Organizer and Task Committee: CLEF-2024 SemEval Task   2024
  Multilingual Text Detoxification
- Area Chair: NAACL   2025

Multimodal Learning

- Session Chair: ECAI 2023 Technical Sessions   2023
  Speech and Natural Language Processing
- Conference Reviewer: ACL, EMNLP, NAACL, COLING, AISTATS, ACM MM   2025
  Multimodal Learning, Interpretability and Analysis of Models for NLP, Cognitive Modeling
- Conference Reviewer: ACL, EMNLP, NAACL, LREC-COLING, ECCV, ACM MM, NeurIPS   2024
  Multimodal Learning, Interpretability and Analysis of Models for NLP, Integrated Systems and Applications
- Conference Reviewer: ACL, EMNLP, NAACL, EACL, IJCNLP-AACL, CVPR, ACM MM, ECAI   2023
  Multimodal Learning, Sentiment Analysis, Stylistic Analysis, and Argument Mining
- Conference Reviewer: ACL, EMNLP, EACL, IJCNLP-AACL   2022
  Cognitive Modeling and Psycholinguistics, Summariaztion, Multimodal
- Conference Reviewer: ACL, NAACL, IJCAI/Senior Program Committee, KONVENS/Program Committee   2021
  Summarization, Generation, Crossmodal Learning, Multilingual Hate Speech
- Conference Reviewer: ACL, EMNLP, IJCNLP-AACL   2020
  Summarization, Generation, Multidisciplinary
- Conference Reviewer: EMNLP, NLPCC   2019
  Summarization, Conversational Bot/QA/IR/Dialogue
- Area Chair for ACL Rolling Review (ARR)   2024–2025
  Multimodal Learning
- Reviewer for ACL Rolling Review (ARR)   2021–2025
  Multimodal Learning, Interpretability and Analysis of Large Language Models
- Reviewer for Journal TALLIP   2020–2021
  Natural Language Processing
- Reviewer for Journal IEEE Access   2020–2021
  Computer Vision, Natural Language Processing

Skills

- **Programming Languages:** Python, Java, C++, C
- **Toolkit for DL and LLMs:** PyTorch, Hugging Face Transformers, DeepSpeed, vLLM, NumPy, Pandas, Matplotlib, Scikit-learn, NLTK, spaCy, Weights & Biases

Languages

- **Chinese:** Native speaker
- **English:** Highly proficient in spoken and written (C1)
- **German:** Basic communication skills (A2)