Dr. MA, Jing

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Department of Computer Science　　　　　　　**Web URL:**　*https://majingcuhk.github.io*
Hong Kong Baptist University, Hong Kong
Google Scholar: *https://scholar.google.com/citations?user=78Jby0EAAAAJ&hl=zh-CN*

Education

- **Ph.D., Information System – Systems Engineering and Engineering Management**
  The Chinese University of Hong Kong, 2016.08 – 2020.02
  Department of Systems Engineering and Engineering Management
  Supervisor: Kam-Fai Wong (CUHK) | Wei Gao (Victoria University of Wellington, New Zealand)
- **M.S., Computer Science – Telecommunications Engineering**
  Beijing University of Posts and Telecommunications, 2013.08 – 2016.03
- **B.Eng., Telecommunications Engineering**
  Beijing University of Posts and Telecommunications, 2009.09 – 2013.06
  School of Information and Communications Engineering

Research Interests

- Large Language Model: Code Large Language Model, AI Safety
- Multi-modal Large Models– Image Text retrieval, Image Text Understanding, Meme detection
- Credibility– Rumor Detection, Fact Checking, Explainable Fake news detection
- Social Media Analytics – Stance Classification, Opinion mining
- Information Retrieval – Opinion Mining, Question and Answering, Dialog System
- Machine Learning – Supervised or Weak supervised learning, Explainable machine learning

Selected Publications

– **Conference Papers**

- VideoAutoArena: An Automated Arena for Evaluating Large Multimodal Models in Video Analysis through User Simulation
  Ziyang Luo, Haoning Wu, Dongxu Li, **Jing Ma**, Mohan Kankanhalli, Junnan Li
  CVPR 2025: The IEEE/CVF Conference on Computer Vision and Pattern Recognition, Jun 2025, Nashville TN.
- ScratchEval: Are GPT-4o Smarter than My Child? Evaluating Large Multimodal Models with Visual Programming Challenges
  Rao Fu, Ziyang Luo, Hongzhan Lin, Zhen Ye, **Jing Ma***
  NAACL 2025: North American Chapter of the Association for Computational Linguistics, April, New Mexico.
- Meme Trojan: Backdoor Attacks Against Hateful Meme Detection via Cross-Modal Triggers
  Ruo F Wang, Hongzhan Lin, Ziyuan Luo, Ka Chun Cheung, Simon See, **Jing Ma**, Renjie Wan
  AAAI 2025: The 39th AAAI Conference on Artificial Intelligence, Feb 2025, Philadelphia, Pennsylvania, USA.

- CodeJudge-Eval: Can Large Language Models be Good Judges in Code Understanding?
  Yuwei Zhao, Ziyang Luo, Yuchen Tian, Hongzhan Lin, Weixiang Yan, Annan Li, **Jing Ma***
  COLING 2025: The 31th International Conference on Computational Linguistics, Jan 2025, Abu Dhabi, UAE.
- AMR-Evol: Adaptive Modular Response Evolution Elicits Better Knowledge Distillation for Large Language Models in Code Generation
  Ziyang Luo, Xin Li, Hongzhan Lin, **Jing Ma***, Lidong Bing
  EMNLP 2024: Conference on Empirical Methods in Natural Language Processing, Nov 2024, Miami.
- Towards Low-Resource Harmful Meme Detection with LMM Agents
  Jianzhao Huang, Hongzhan Lin, ZiyanLiu, Ziyang Luo, Guang Chen, **Jing Ma***
  EMNLP 2024: Conference on Empirical Methods in Natural Language Processing, Nov 2024, Miami.
- MMCode: Evaluating Multi-Modal Code Large Language Models with Visually Rich Programming Problems
  Kaixin Li, Yuchen Tian, Qisheng Hu, Ziyang Luo, Zhiyong Huang, **Jing Ma**
  EMNLP 2024: Conference on Empirical Methods in Natural Language Processing (Findings), Nov 2024, Miami.
- CofiPara: A Coarse-to-fine Paradigm for Multimodal Sarcasm Target Identification with Large Multimodal Models
  Zixin Chen, Hongzhan Lin, Ziyang Luo, Mingfei Cheng, **Jing Ma***, Guang Chen,
  ACL 2024: The 62nd Annual Meeting of the Association for Computational Linguistics, Aug 2024, Bangkok.
- Reinforcement Tuning for Detecting Stances and Debunking Rumors Jointly with Large Language Models
  Ruichao Yang, Wei Gao, **Jing Ma***, Hongzhan Lin, Bo Wang,
  ACL 2024: The 62nd Annual Meeting of the Association for Computational Linguistics (Findings), Aug 2024, Bangkok.
- Towards Explainable Harmful Meme Detection through Multimodal Debate between Large Language Models
  Hongzhan Lin, Ziyang Luo, Wei Gao, **Jing Ma***, Bo Wang, Ruichao Yang,
  WWW 2024: The Web Conference 2024, May 2024, *Singapore*
- Explainable Fake News Detection With Large Language Model via Defense Among Competing Wisdom
  Bo Wang, **Jing Ma***, Hongzhan Lin, Zhiwei Yang, Ruichao Yang, Yuan Tian, Yi Chang,
  WWW 2024: The Web Conference 2024, May 2024, *Singapore*
- WizardCoder: Empowering Code Large Language Models with Evol-Instruct
  Ziyang Luo, Can Xu, Pu Zhao, Qingfeng Sun, Xiubo Geng, Wenxiang Hu, Chongyang Tao, **Jing Ma***, Qingwei Lin, Daxin Jiang,
  ICLR 2024: The Twelfth International Conference on Learning Representations, May 2024, *Vienna, Austria*
- Unleashing Trigger-Free Event Detection: Revealing Event Correlations via A Contrastive Derangement Framework
  Hongzhan Lin, Haiqin Yang, Ziyang Luo, **Jing Ma***
  ICASSP 2024: IEEE International Conference on Acoustics, Speech and Signal Processing, Apr 2024, *Seoul*.
- WSDMS: Debunk Fake News via Weakly Supervised Detection of Misinforming Sentences with Contextualized Social Wisdom
  Ruichao Yang, Wei Gao, **Jing Ma***, Hongzhan Lin, Zhiwei Yang
  EMNLP 2023: Conference on Empirical Methods in Natural Language Processing, Dec 2023, *Singapore*.
- Beneath the Surface: Unveiling Harmful Memes with Multimodal Reasoning Distilled from Large Language Models
  Hongzhan Lin, Ziyang Luo, **Jing Ma***, Long Chen
  EMNLP 2023: Conference on Empirical Methods in Natural Language Processing (Findings), Dec 2023, *Singapore*.
- LexLIP: Lexicon-Bottlenecked Language-Image Pre-Training for Large-Scale Image-Text Sparse Retrieval
  Ziyang Luo, Pu Zhao, Can Xu, Xiubo Geng, Tao Shen, Chongyang Tao, **Jing Ma***, Qingwei Lin, Daxin Jiang
  ICCV 2023: International Conference on Computer Vision 2023, Oct 2023, *Paris*.
- I-TUNING: Tuning Frozen Language Models with Image for Lightweight Image Captioning
  Ziyang Luo, Zhipeng Hu, Yadong Xi, Rongsheng Zhang, **Jing Ma***
  ICASSP 2023: 2023 IEEE International Conference on Acoustics, Speech and Signal Processing, Jun 2023, *Greece*.

- Zero-Shot Rumor Detection with Propagation Structure via Prompt Learning

  Hongzhan Lin, Pengyao Yi, **Jing Ma**∗, Haiyun Jiang, Ziyang Luo, Shuming Shi, Ruifang Liu

  AAAI 2023: The Thirty-Seventh AAAI Conference on Artificial Intelligence, Feb 2023, *Washington DC*.

- Conditioned Masked Language and Image Modeling for Image-Text Dense Retrieval

  Ziyang Luo, Yadong Xi, Rongsheng Zhang, Gongzheng Li, Zeng Zhao, **Jing Ma**∗

  EMNLP 2022: The 2022 Conference on Empirical Methods in Natural Language Processing (Findings), Dec 2022, *Abu*.

- A Coarse-to-fine Cascaded Evidence-Distillation Neural Network for Explainable Fake News Detection

  Zhiwei Yang, **Jing Ma**∗, Hechang Chen, Hongzhan Lin, Ziyang Luo and Yi Chang

  COLING 2022: The 29th International Conference on Computational Linguistics, Oct 2022, *Gyeongju.*

- DecBERT: Enhancing the Language Understanding of BERT with Causal Attention Masks

  Ziyang Luo, Yadong Xi, **Jing Ma**, Zhiwei Yang, Xiaoxi Mao, Changjie Fan, Rongsheng Zhang

  NAACL 2022: 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics (Findings), Jul 2022, *Seattle.*

- Detect Rumors in Microblog Posts for Low-Resource Domains via Adversarial Contrastive Learning

  Hongzhan Lin, **Jing Ma**∗, Liangliang Chen, Zhiwei Yang, Mingfei Cheng, Guang Chen

  NAACL 2022: 2022 Annual Conference of the North American Chapter of the Association for Computational Linguistics (Findings), Jul 2022, *Seattle.*

- A Weakly Supervised Propagation Model for Rumor Verification and Stance Detection with Multiple Instance Learning

  Ruichao Yang, **Jing Ma**, Hongzhan Lin and Wei Gao

  SIGIR 2022: The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval, Jul 2022, *Madrid*.

- AMIF: A Hybrid Model for Improving Fact Checking in Product Question Answering

  Hongzhan Lin, Liangliang Chen, **Jing Ma**∗, Zhiwei Yang and Guang Chen

  IJCNN 2022: 2022 International Joint Conference on Neural Networks, Jul 2022, *Padua*.

- Rumor Detection on Twitter with Claim-Guided Hierarchical Graph Attention Networks

  Hongzhan Lin, **Jing Ma**, Mingfei Cheng, Zhiwei Yang, Liangliang Chen and Guang Chen

  EMNLP 2021: The 2021 Conference on Empirical Methods in Natural Language Processing, Nov 2021, *online*

- HiTRANS: A Hierarchical Transformer Network for Nested Named Entity Recognition

  Zhiwei Yang, **Jing Ma**, Hechang Chen, Yunke Zhang and Yi Chang

  EMNLP 2021: The 2021 Conference on Empirical Methods in Natural Language Processing (Findings), Nov 2021.

- Debunking Rumors on Twitter with Tree Transformer

  Jing Ma and Wei Gao

  COLING 2020: The 28th International Conference on Computational Linguistics, Dec 2020, *online*

- AnswerFact: Fact Checking in Product Question Answering

  Wenxuan Zhang, Yang Deng, **Jing Ma**, Wai Lam

  EMNLP 2020: The 2020 Conference on Empirical Methods in Natural Language Processing, Nov 2020, *online*

- Attention-based Multi-level Feature Fusion for Named Entity Recognition

  Zhiwei Yang, Hechang Chen, Jiawei Zhang, **Jing Ma,** Yi Chang

  IJCAI 2020: The 29th International Joint Conference on Artificial Intelligence, July 2020, Yokohama, Japan

- Review-guided Helpful Answer Identification in E-commerce

  Wenxuan Zhang, Wai Lam, Yang Deng, **Jing Ma**

  WWW 2020: The Web Conference 2020, April 2020, Taipei

- Sentence-Level Evidence Embedding for Claim Verification with Hierarchical Attention Networks

  Jing Ma, Wei Gao, Shafiq Joty, and Kam-Fai Wong

  ACL 2019: The 57th Annual Meeting of the Association for Computational Linguistics, July 2019, Florence, Italy

- Detect Rumors on Twitter by Promoting Information Campaigns with Generative Adversarial Learning
  Jing Ma, Wei Gao, and Kam-Fai Wong
  WWW 2019: The Web Conference 2019, May 2019, San Francisco, USA
- Rumor Detection on Twitter with Tree-structured Recursive Neural Networks
  Jing Ma, Wei Gao, and Kam-Fai Wong
  ACL 2018: The 56th Annual Meeting of the Association for Computational Linguistics, July 2018, Melbourne, Australia
- Detect Rumor and Stance Jointly by Neural Multi-task Learning
  Jing Ma, Wei Gao, and Kam-Fai Wong
  WWW 2018 (Misinformation track): The Web Conference 2018, April 2018, Lyon, France
- Detect Rumors in Microblog Posts Using Propagation via Kernel Learning
  Jing Ma, Wei Gao, and Kam-Fai Wong
  ACL 2017: The 55th Annual Meeting of the Association for Computational Linguistics, July 2017, Vancouver, Canada
- From Retweet to Believability: Utilizing Trust to Identify Rumor Spreaders on Twitter
  Bhavtosh Rath, Wei Gao, **Jing Ma**, and Jaideep Srivastava
  ASONAM 2017: The 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, August 2017, Sydney
- Detecting Rumors from Microblogs with Recurrent Neural Networks
  Jing Ma, Wei Gao, Prasenjit Mitra, Sejeong Kwon, Bernard J. Jansen, Kam-Fai Wong, and Meeyoung Cha
  IJCAI 2016: The 25th International Joint Conference on Artificial Intelligence, July 2016, New York, USA
- Detect Rumors Using Time Series of Social Context Information on Microblogging Websites
  Jing Ma, Wei Gao, Zhongyu Wei, Yueming Lu, and Kam-Fai Wong
  CIKM 2015: The 24th ACM International Conference on Information and Knowledge Management, October 2015, Melbourne, Australia

– **Journal Papers**

- Utilizing Computational Trust to Identify Rumor Spreaders on Twitter
  Bhavtosh Rath, Wei Gao, **Jing Ma**, and Jaideep Srivastava
  SNAM: Social Network Analysis and Mining, 8:64, December 2018, Springer
- An Attention-based Hybrid Model for Rumor Detection with Tree-structured Recursive Neural Networks
  Jing Ma, Wei Gao, Shafiq Joty, and Kam-Fai Wong
  TIST: ACM Transactions on Intelligent Systems and Technology, 2020, 11(4): 1-28
- Improving Rumor Detection by Promoting Information Campaigns with Transformer-based Generative Adversarial Learning
  Jing Ma, Jun Li, Wei Gao, Yang Yang, and Kam-Fai Wong
  TKDE: IEEE Transactions on Knowledge and Data Engineering, 2021.
- Context-aware Attentive Multi-level Feature Fusion for Named Entity Recognition
  Zhiwei Yang, **Jing Ma**, Hechang Chen, Jiawei Zhang and Yi Chang
  TNNLS: IEEE Transactions on Neural Networks and Learning Systems, 2022**.**
- EHR-KnowGen: Knowledge-enhanced Multimodal Learning for Disease Diagnosis Generation
  Shuai Niu, **Jing Ma**, Liang Bai, Zhihua Wang, Guo Li, Xian Yang
  Information Fusion, 2023
- CoTea: Collaborative Teaching for Low-resource Named Entity Recognition with A Divide-and-conquer Strategy
  Zhiwei Yang, **Jing Ma**, Kang Yang, Hechang Chen, Huiru Lin, Ruichao Yang and Yi Chang
  Information Sciences, 2024**.**

- A deep clustering-based state-spacemodel for improved disease risk prediction in personalized healthcare
  Shuai Niu, **Jing Ma**, Qing Yin, Liang Bai, Chen Li and Xian Yang
  Annals of Operations Research, 2024**.**
- Towards low-resource rumor detection: Unified contrastive transfer with propagation structure
  Hongzhan Lin, **Jing Ma***, Ruichao Yang, Zhiwei Yang, Mingfei Cheng
  Neurocomputing, 2024**.**
- LLM-Enhanced Multiple Instance Learning for Joint Rumor and Stance Detection with Social Context Information
  Ruichao Yang, **Jing Ma***, Wei Gao, Hongzhan Lin
  TIST: ACM Transactions on Intelligent Systems and Technology, 2025**.**
- Scientific poster generation: A new dataset and approach
  Xinyi Zhong, Zusheng Tan, Jing Li, Shen Gao, **Jing Ma**, Shanshan Feng, Billy Chiu
  Pattern Recognition, 2025**.**

- **Workshop Papers**

  - Cross-lingual COVID-19 Fake News Detection
    Jiangshu Du, Yingtong Dou, Congying Xia, Limeng Cui, **Jing Ma**, and Philip Yu
    SDM 2021: The First IEEE International Workshop on Social Data Mining in the Post-pandemic Era @ICDM 2021
  - UIR-PKU: Twitter-OpinMiner System for Sentiment Analysis in Twitter at SemEval 2015
    Xu Han, Binyang Li, **Jing Ma**, Yuxiao Zhang, Gaoyan Ou, Tengjiao Wang, Kam-Fai Wong
    SemEval 2015: The 9th International Workshop on Semantic Evaluation @NAACL-HLT 2015

Recent Research Grants as Principal Investigator (PI)
- "Automatic Fact Verification via Reasoning Across Multiple Sourced Data", **PI**, The AI-Info Communication Study (AIS) Scheme, HK$ 150,000 [Jan 2021 – Aug 2022]. **Completed**.
- "Weakly Supervised Deep Learning for Robust Opinion Mining on Social Media with Minimal Annotation", **PI**, One-off Tier 2 Start-up Grant, HK$ 350,000 [Aug 2022 – Aug 2024], **On-going**.
- "Conversation-based Reasoning for Explainable Fake News Detection via Weakly Supervised Evidence Detection", PI, RGC Early Career Scheme, HK$ 969,680 [Jan 2023 – Dec 2025], **On-going**.
- "基于社交关系的新闻自动摘要与虚假信息对抗", PI, 国家自然科学基金-青年科学基金项目, RMB 300,000 [Jan 2023 – Dec 2025], **On-going**.
- "价值观对齐的可信大语言模型研究", PI, 2024 腾讯犀牛鸟专项, HKD 350,000 [Jun 2024 – Jun 2025], **On-going**.

Academic Services
- **Conference Area Chair:**
  - AACL 2023, NAACL 2024, ACL 2024, EMNLP 2024, NLPCC 2024
- **Program Committee Member:**
  - WSDM 2023-2024, EACL 2023, AACL 2022, WWW2021 2023-2024, AAAI 2019-2022, ACL 2019, EMNLP 2019, AI 2019
- **Journal Reviewer:**
  - IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
  - IEEE Transactions on Knowledge and Data Engineering (TKDE)
  - ACM Transactions on Intelligent Systems and Technology (TIST)
  - IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
  - ACM Transactions on Multimedia Computing, Communications and Applications (TOMM)
  - PLOS ONE

- - Neurocomputing
- **Workshop Organizer:**
  - Preventing and Detecting LLM Generated Misinformation@AAAI-25
- **Invited Talks:**
  - "Large Language Model for Social Safety", Keynote Speaker at SSNLP 2024, Singapore, Nov 6th, 2024.
  - "Large Language Model: Background, Techniques and our development" at How Well Can AI Assist Us in Coding and Grading Tasks?, Hong Kong, Nov 30th, 2023.
  - "Social Context Assisted Fact-checking via Weakly Supervised Learning" at AI NEW HORIZONS 2023: A Symposium with Scientific Leaders, Hong Kong, Nov 18th, 2023.
  - "Social Context Assisted Fake News Detection and Stance Detection" at Beijing University of Posts and Telecommunications, China, Apr 11st, 2023.
  - "Social Context Assisted Fake News Detection and Stance Detection" at Jilin University, China, Apr 6th, 2023.
  - "Social Assisted Rumor Detection and Fake News Detection" at Turing NLP Special Interest Group, London, Mar 23rd, 2023.
  - "Chatbot and NLP" at Hong Kong Baptist University, Hong Kong, Feb 7th, 2023.
  - "Combating Misinformation in the Era of Social Media" at Jilin University, China, Sep 13rd, 2022.
  - "Combating Misinformation in the Era of Social Media" at Fudan University, China, Jul 1st, 2022.
  - "Introduction to Natural Language Processing" at Agricultural Bank of China, China, Sep 27th, 2019.
  - "Detect Rumors on Twitter by Promoting Information Campaigns with Generative Adversarial Learning" at Singapore Management University, Singapore, Apr 3rd, 2019.
  - "Introduction to Rumor-related Research from Social media" at Beijing University of Posts and Telecommunications, China, Mar 29th, 2018.
  - "Detect Rumor and Stance Jointly by Neural Multi-task Learning" at National Taiwan University, Taiwan, Apr 12th, 2018.
  - "Deep Neural Models on Rumor Detection from Social Media" at University of Electric Science and Technology of China, China, Sep 9th, 2018.

Academic Experiences

Visiting Scholar	Institute for Basic Science (South Korea)	Dec.2019 – Feb.2020

- **Responsibilities:** Consistency recognition for Wikimedia services, hate speech detection, etc
- **Supervisor: Assoc Prof.** Meeyoung Cha
- Data Science Group

Visiting Scholar	Nanyang Technological University (Singapore)	Dec.2018 – Aug.2019

- **Responsibilities:** Claim Verification and Fact Checking from multi-sourced web outlets.
- **Supervisor: Assoc Prof.** Shaffiq Rayhan Joty
- Dept. NLP Lab at School of Computer Science and Engineering (SCSE)

Recognition, Achievements, and Events

- "An Attention-based Rumor Detection Model with Tree-structured Recursive Neural Networks" is recognized as Top Five Outstanding TIST Articles in 2022.
- Recognised as one of "The 2022 Women in AI" by AMiner.
- Named Recipients of "2022 AI 2000 Most Influential Scholar Award Honorable Mention" by AMiner.
- Recognised as "The World's top 2% scientists" released by Stanford University.

- Selected into "2023 AI Chinese Female Young Scholars list (2023 AI 华人女性青年学者榜)" (2023)
- More than 50 publications in refereed journals and conferences, including ACL, WWW, EMNLP, IJCAI, TKDE and TIST, received a total of 6200+ citations, with an h-index 26 (*Google Scholar*).

Teaching & Tutorials

- **COMP 4136/7045:** Natural Language Processing, Spring 2021-2025   [Lecture]
- **COMP 2865:** Fundamental of Data Analysis and Management, Fall 2021, 2024   [Lecture]
- **COMP4125/7820:** Visual Analytics & Decision Support, Spring/Fall 2021-2024   [Lecture]
- **COMP4085**: Selected topics in Information Intelligence, Fall 2020   [Lecture]
- **ITS7010**: ITS Doctoral Research Training I, Fall 2024   [Speaker]

Mentoring

- **TIAN, Yuchen**   PhD at Hong Kong Baptist University *[Jan, 2025 -]*
- **KONG, Chuyi**   PhD at Hong Kong Baptist University *[Aug, 2024 -]*
- **FU, Rao**   PhD at Hong Kong Baptist University *[Aug, 2024 -]*
- **Sun, Yuxi**   PhD at Hong Kong Baptist University *[Aug, 2023 -]*
- **Lin, Hongzhan**   PhD at Hong Kong Baptist University *[Aug, 2022 -]*
- **Luo, Ziyang**   PhD at Hong Kong Baptist University *[Aug, 2021 -]*
- **Yang, Ruichao**   PhD at Hong Kong Baptist University *[Aug, 2020 – Nov, 2024]*
- **Niu, Shuai**   PhD at Hong Kong Baptist University *[Aug, 2020 -]*
- **Yang, Zhiwei**   PhD at Jilin University, *visited during [Mar, 2023 - Sep, 2023]*
- **Wang, Bo**   PhD at Jilin University, *visited during [Mar, 2023 - Mar, 2024]*
- **Li, Jun**   PhD at University of Electronic Science and Technology of China
- **Peng, Likai**   Research Assistant at Hong Kong Baptist University *[Oct, 2021 - Oct, 2022]*