

Mingzhe Du

(+65) 9658 2486 | dumingzhex@gmail.com | <https://mingzhe.space>
Innovation 4.0, 3 Research Link, Singapore, 117902

RESEARCH INTERESTS

Code Generation / Preference Alignment / Bias Evaluation and Mitigation

EDUCATION

Nanyang Technological University

Singapore

PhD Candidate in Computer Science, College of Computing and Data Science

Aug. 2022 – Present

- Advisor: Prof. Anh Tuan Luu

The University of Melbourne

Melbourne, Australia

Master of Information Technology, Faculty of Engineering

Oct. 2017 – Dec. 2019

- Specialization: Distributed Computing (Honorable Dissertation)

Central South University

Changsha, China

Bachelor of Information Security, School of Computer Science and Engineering

Sep. 2013 – Jun. 2017

- Excellent Scholarships (GPA: 3.7/4.0)

PROFESSIONAL EXPERIENCE

National University of Singapore, *Institute of Data Science*

Aug. 2021 – Present

- Research Associate (Advisor: Prof. See-Kiong Ng).
- Affiliated with Cisco-NUS Accelerated Digital Economy Corporate Laboratory.

ByteDance, *TikTok*

Dec. 2019 – Aug. 2021

- Software Architect
- Implemented a high-performance NLP operator library in C++.
- Designed a general search engine, now powering the search services of TikTok and TouTiao.

Microsoft, *Asia-Pacific Research and Development Group*

Nov. 2018 – Mar. 2019

- Research Intern (Mentor: Wei Liu).
- Contributed features to XiaoIce chatbot.
- Developed a text-to-image transformer that converts textual sentences into visually representative images.

Alibaba, *Ant Finance Core Clearing Team*

Jul. 2016 – Oct. 2016

- Software Engineer Intern.
- Contributed to a core system that supports Alipay payment account clearing flow, merging millions of orders in a minute-level interval for exchanging data with bank partners.

Tencent, *Social Network Group*

Mar. 2016 – Jun. 2016

- Software Engineer Intern.
- Implemented a URL flow processing platform to analyze and detect suspicious URL content in public message traffic, enabling the filtering of malicious information.

ACADEMIC SERVICES

- **Conference Reviewer:** *AAAI'26, CIKM'25, ECAI'25, NeurIPS'25, ICML'25, ICLR'25, NAACL'24, EMNLP'24, AISTATS'24, ICLR'24, NeurIPS'24, ECAI'24, CLEF'23.*
- **Journal Reviewer:** *ACM Computing Survey, Frontiers in Artificial Intelligence.*
- **Volunteer:** *ACL'25, WWW'24, EMNLP'24, AAAI'23.*
- **STEM Mentor:** *The University of Melbourne (2019-Present).*

1. Xinyi He, Qian Liu, **Mingzhe Du**, Lin Yan, Zhijie Fan, Yiming Huang, Zejian Yuan, and Zejun Ma. [SWE-Perf: Can Language Models Optimize Code Performance on Real-World Repositories?](#) (*Preprint*).
2. Zhaomin Wu, **Mingzhe Du**, See-Kiong Ng, and Bingsheng He. [Beyond Prompt-Induced Lies: Investigating LLM Deception on Benign Prompts](#). (*Preprint*).
3. Dong Huang, Jie M. Zhang, Mark Harman, Qianru Zhang, **Mingzhe Du**[†], and See-Kiong Ng. [Benchmarking LLMs for Unit Test Generation from Real-World Functions](#). (*Preprint*).
4. **Mingzhe Du**, Luu Anh Tuan, Yue Liu, Yuhao Qing, Dong Huang, Xinyi He, Qian Liu, Zejun Ma, and See-kiong Ng. [Afterburner: Reinforcement Learning Facilitates Self-Improving Code Efficiency Optimization](#). In *the Advances in Neural Information Processing Systems (NeurIPS'25)*.
5. Yuhao Qing*, Boyu Zhu*, **Mingzhe Du***, Zhijiang Guo, Terry Yue Zhuo, Qianru Zhang, Jie M. Zhang, Heming Cui, Siu-Ming Yiu, Dong Huang, See-Kiong Ng, Luu Anh Tuan. [EffiBench-X: A Multi-Language Benchmark for Measuring Efficiency of LLM-Generated Code](#). *the Advances in Neural Information Processing Systems (NeurIPS'25)*.
6. Yue Liu, Shengfang Zhai, **Mingzhe Du**, Yulin Chen, Tri Cao, Hongcheng Gao, Cheng Wang, Xinfeng Li, Kun Wang, Junfeng Fang, Jiaheng Zhang, and Bryan Hooi. [Guardreasoner-VL: Safeguarding VLMs via Reinforced Reasoning](#). (*the Advances in Neural Information Processing Systems (NeurIPS'25)*).
7. **Mingzhe Du**, Luu Anh Tuan, Yue Liu, Yuhao Qing, Dong Huang, Xinyi He, Qian Liu, Zejun Ma, and See-kiong Ng. [Afterburner: Reinforcement Learning Facilitates Self-Improving Code Efficiency Optimization](#). In *ICML'25 Workshop on Programmatic Representations for Agent Learning (PRAL@ICML'25)*.
8. **Mingzhe Du**, Luu Anh Tuan, Xiaobao Wu, Yichong Huang, Yue Liu, Dong Huang, Huijun Liu, Bin Ji, Jie M. Zhang, and See-Kiong Ng. [Collective Bias Mitigation via Model Routing and Collaboration](#). In *ICML'25 Workshop on Collaborative and Federated Agentic Workflows (CFAgentic@ICML'25)*.
9. Dong Huang, Jie M. Zhang, Mark Harman, **Mingzhe Du**, and Heming Cui. [Measuring the Influence of Incorrect Code on Test Generation](#). In *the International Conference on Software Engineering (ICSE'25)*.
10. **Mingzhe Du**, Anh Tuan Luu, Bin Ji, Xiaobao Wu, Dong Huang, Terry Yue Zhuo, Qian Liu, and See-Kiong Ng. [CodeArena: A collective evaluation platform for LLM code generation](#). In *the Association for Computational Linguistics (ACL'25 Demo)*.
11. Xiaobao Wu, Liangming Pan, Yuxi Xie, Ruiwen Zhou, Shuai Zhao, Yubo Ma, **Mingzhe Du**, Rui Mao, Anh Tuan Luu, and William Yang Wang. [AntiLeakBench: Preventing Data Contamination by Automatically Constructing Benchmarks with Updated Real-World Knowledge](#). In *the Association for Computational Linguistics (ACL'25 Oral, SAC Highlight Award)*.
12. Moming Duan*, **Mingzhe Du***, Rui Zhao, Mengying Wang, Yinghui Wu, Nigel Shadbolt, and Bingsheng He. [Position: Current Model Licensing Practices are Dragging Us into a Quagmire of Legal Noncompliance](#). In *the International Conference on Machine Learning (ICML'25 Oral)*.
13. Ji, Bin, Huijun Liu, **Mingzhe Du**, Shasha Li, Xiaodong Liu, Jun Ma, Jie Yu, and See-Kiong Ng. [Towards Verifiable Text Generation with Generative Agent](#). In *the AAAI Conference on Artificial Intelligence (AAAI'25 Oral)*.
14. Duc Anh Vu, Cong-Duy Nguyen, Xiaobao Wu, Nhat Hoang, **Mingzhe Du**, Thong Nguyen, and Anh Tuan Luu. [Curriculum Demonstration Selection for In-Context Learning](#). In *the 40th ACM/SIGAPP Symposium on Applied Computing (SAC'25)*.
15. **Mingzhe Du**, Anh Tuan Luu, Bin Ji, Qian Liu, and See-Kiong Ng. [Mercury: A Code Efficiency Benchmark for Code Large Language Models](#). In *the Advances in Neural Information Processing Systems (NeurIPS'24)*.
16. Beng Heng Ang, Sujatha Das Gollapalli, **Mingzhe Du**, and See-Kiong Ng. [Unraveling Online Mental Health Through the Lens of Early Maladaptive Schemas: AI-Enabled Content Analysis of Online Mental Health Communities](#). In *the Journal of Medical Internet Research (JMIR'25)*.

17. **Mingzhe Du**, Anh Tuan Luu, Bin Ji, and See-Kiong Ng. [From Static to Dynamic: Knowledge Metabolism for Large Language Models](#). In *the AAAI Conference on Artificial Intelligence (AAAI'24)*.
18. Bin Ji, Huijun Liu, **Mingzhe Du**, and See-Kiong Ng. [Chain-of-Thought Improves Text Generation with Citations in Large Language Models](#). In *the AAAI Conference on Artificial Intelligence (AAAI'24)*.
19. Sujatha Das Gollapalli, Beng Heng Ang, **Mingzhe Du**, and See-Kiong Ng. [Counseling Responses for Mental Health Forum Questions with Early Maladaptive Schema Prediction](#). In *the European Conference on Artificial Intelligence (ECAI'24)*.
20. **Mingzhe Du**, Mouad Hakam, See-Kiong Ng, and Stéphane Bressan. [Constituency-Informed and Constituency-Constrained Extractive Question Answering with Heterogeneous Graph Transformer](#). In *the Transactions on Large-Scale Data-and Knowledge-Centered Systems LIII (TLDK'23)*.
21. Sujatha Das Gollapalli, **Mingzhe Du**, and See-Kiong Ng. [Identifying Checkworthy Cure Claims on Twitter](#). In *the ACM Web Conference (WWW'23)*.
22. Sujatha Das Gollapalli, **Mingzhe Du**, and See-Kiong Ng. [Generating Reflective Questions for Engaging Gallery Visitors in ArtMuse](#). In *the AAAI Conference on Artificial Intelligence (AAAI'23)*.
23. **Mingzhe Du**, Sujatha Das Gollapalli, and See-Kiong Ng. [NUS-IDS at CheckThat! 2022: Identifying Check-worthiness of Tweets using CheckthaT5](#). In *the Conference and Labs of the Evaluation Forum (CLEF'22)*.

† *Corresponding Author*, * *Equal Contribution*.

MISCELLANEOUS

- **LinkedIn:** *Mingzhe's LinkedIn* **WeChat:** *spirit_song*
- **GitHub:** <https://www.github.com/elfsong>
- **Business Email:** mingzhe@nus.edu.sg | mingzhe001@ntu.edu.sg