

Zijun Long

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Summary

My research primarily focuses on artificial intelligence (AI) for the development of novel multi-modal (text+image) learning techniques, with a particular emphasis on the employment of large language models at the intersection of machine learning, computer vision, and natural language processing. My research track record is distinguished by 8 peer-reviewed full papers as first-author, published in prestigious conferences and journals, such as ICRA (h5-index 119, CORE A*), ICASSP (h5-index 123), and DATE (h5-index 49). Over the past three years, I have enriched my academic and leadership skills by serving as an MSc Project Supervisor, Tutor, and Marking Assistant at the University of Glasgow. My commitment to the field extends to my active participation as a Program Committee member and reviewer for leading conferences like AAAI (h5-index 212, CORE A*), ECCV (h5-index 238, CORE A*), and notably as a proceedings chair for BMVC (h5-index 77, CORE A). This experience demonstrates my commitment to advancing the community, showcasing my proficiency in academic writing and ability to effectively present our contributions to the field.

EDUCATION

University of Glasgow , Glasgow, United Kingdom	2020 — Now
PhD in Computer Science, <i>Supervisor: Richard McCreddie, Gerardo Aragon Camarasa</i>	Fully Funded

University of Glasgow , Glasgow, United Kingdom	2019 — 2020
M.S.c in Data Science, <i>Average grade: A3</i>	Awarded with Distinction

South China University of Technology , GuangZhou, China	2015 — 2019
B.S. in Software Engineering	First Honour Degree

ACADEMIC EMPLOYMENT EXPERIENCE

University of Glasgow	Glasgow, United Kingdom
<i>MSc Project Supervisor</i>	May 2023 — Oct 2023

- Supervised 20 MSc students and 8 of them achieve A grade for their projects.

University of Glasgow	Glasgow, United Kingdom
<i>Tutor</i>	Nov 2020 — Present

- Courses: Recommendation system, Text as Data, Introduction of Data Science, Programming, Machine Learning, etc.
- Received high commendation for my exceptional performance in the role.

University of Glasgow	Glasgow, United Kingdom
<i>Marking Assistant</i>	Nov 2020 — Present

- Marking the exams for many courses including Text as Data, Introduction of Data Science, Programming, Machine Learning, etc.
- Lecturer's assessment: Accomplished the task with exceptional proficiency, consistently maintaining high standards across all assignments.

Guangzhou Institute of Advanced Technology, Chinese Academy of Sciences	Guangzhou, China
<i>Intern Researcher</i>	June 2016 — Sep 2016

- Participated in the research project on the topic of hardware security and testing of multiple intelligent algorithms.
- Received the excellent intern award.

PUBLICATIONS

Peer-reviewed Conference & Journal Publications

- **Zijun Long**, George Killick, Richard McCreddie, Gerardo Aragon Camarasa. RoboLLM: Robotic Vision Tasks Grounded on Multimodal Large Language Models, *IEEE International Conference on Robotics and Automation*, main, 2024. (Core A*, h5-index 119) [link]
- **Zijun Long**, George Killick, Richard McCreddie, Gerardo Aragon Camarasa. MultiWay-Adapater: Adapting large-scale multimodal models for scalable image-text retrieval. *IEEE International Conference on Acoustics, Speech, and Signal Processing*, main, 2024. (h5-index 123) [link]
- **Zijun Long**, Richard McCreddie, Gerardo Aragon Camarasa, Zaiqiao Meng. LaCViT: A Label-aware Contrastive Training Framework for Vision Transformers. *IEEE International Conference on Acoustics, Speech, and Signal Processing*, main, 2024. (h5-index 123) [link]

- **Zijun Long**, Richard McCreadie, Muhammad Imran. CrisisViT: A Robust Vision Transformer for Crisis Image Classification. *20th International Conference on Information Systems for Crisis Response and Management*, main, 2023. (h5-index 21)[link]
- **Zijun Long**, Richard McCreadie. University of Glasgow Terrie Team at the TREC 2023 AToMic Track. *TREC 2023*.
- **Zijun Long**, Richard McCreadie. Is Multi-Modal Data Key for Crisis Content Categorization on Social Media? *19th International Conference on Information Systems for Crisis Response and Management*, main, 2022. (h5-index 21)[link]
- **Zijun Long**, Richard McCreadie. Automated Crisis Content Categorization for COVID-19 Tweet Streams. *18th International Conference on Information Systems for Crisis Response and Management*, main, 2021. (h5-index 21)[link]
- **Zijun Long**, Xiaohang Wang, Yingtao Jiang, Guofeng Cui, Li Zhang, Terrence Mak. Improving the Efficiency of Thermal Covert Channels in Multi-/many-core Systems. *Design, Automation and Test in Europe*, main, 2017. (h5-index 49) [link]

Papers Under Review

- **Zijun Long**, George Killick, Lipeng Zhuang, Richard McCreadie, Gerardo Aragon Camarasa, Paul Henderson. Elucidating and Overcoming the Challenges of Label Noise in Supervised Contrastive Learning, *arXiv preprint arXiv:2311.16481*, 2023. [link]
- **Zijun Long**, George Killick, Richard McCreadie, Gerardo Aragon Camarasa, Zaiqiao Meng. CLCE: An Approach to Refining Cross-Entropy and Contrastive Learning for Optimized Learning Fusion, *arXiv preprint*, 2023. [link]
- Zixuan Yi*, **Zijun Long***, Iadh Ounis, Craig Macdonald, Richard Mccreadie. Large Multi-modal Encoders for Recommendation, *arXiv preprint arXiv:2310.20343*, 2023. [link]
- **Zijun Long**, Xuri Ge, Richard Mccreadie and Joemon Jose. CFIR: Fast and Effective Document-To-Image Retrieval for Large Corpora, 2023.

*:co-first author

Honors & Awards

2024 IEEE International Conference on Acoustics, Speech, and Signal Processing	Seoul, Korea
SPS Travel Grants	2024
18th International Conference on Information Systems for Crisis Response and Management	Blacksburg, Virginia USA
Best Student Paper Award	2021
University of Glasgow	Glasgow, UK
Full PhD scholarship	2020
South China University of Technology	Guangzhou, China
First Class Scholarship of the University	2018
Imagine Cup 2018 Microsoft Global Student Technology Competition	Guangzhou, China
Third Place	2018
National Innovation and Entrepreneurship Training Programme	Guangzhou, China
Excellent Result of Oral Defence (Nearly Top 5%)	2018
Social Practice of the University	Guangzhou, China
Outstanding Participant	2018
Detecting and defending approaches to hardware trojans in network-on-chip	Guangzhou, China
Patent	2017
Detecting and defending approaches to malignant trojans which manipulate data package in Many Core	Guangzhou, China
Patent	2017

Professional Activities

Conference (Senior) Program Committee and Journal Review

- BMVC Proceeding Chair (h5-index 77, CORE A) 2024
- AAAI (h5-index 212, CORE A*) 2023 — 2024
- ISCRAM (h5-index 21) 2022 — 2024

External Reviewer

- ECCV (h5-index 238, CORE A*) 2022 — 2024