

Dr. Yiming Zhang — Resumé

Ph.D. – University of Nottingham

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Professional Experiences

Ningbo Langda Technology Co., Ltd

R&D Engineer, Post-Doctoral Research Fellow

Ningbo, China

Jun 2025 - Present

NingboTech University

Post-Doctoral Research Fellow

Ningbo, China

Jun 2025 - Present

China University of Mining and Technology

Post-Doctoral Research Fellow

Xuzhou, China

Aug 2025 - Present

Education

University of Nottingham

Doctor of Philosophy in Computer Science

Ningbo, China

Sep 2020 - March 2025

University of Melbourne

Master of Information Technology

Melbourne, Australia

Feb 2018 - Dec 2019

University of Nottingham

Bachelor of Science with Honours in Computer Science, First Class

Nottingham, UK

Sep 2013 - July 2017

Research Interests

Technology-Oriented Research:

- Machine Learning
- Large Language Model
- Explainable AI
- Information Fusion

Application-Oriented Research:

- Intelligent Transportation
- Bridge Structural Health Monitoring
- AI Applications in Healthcare
- Surgical Data Science

Publications

- Yiming Zhang**, Ying Weng, and Jonathan Lund, “Application of Explainable Artificial Intelligence in the Diagnosis and Surgery”, *Diagnostics*, vol. 12, no. 2, p. 237, 2022 (**SCI, IF 3.706, ESI Highly Cited Paper**).
- Yiming Zhang**, Ying Weng, and Boding Wang, “CWT-ViT: A Time–Frequency Representation and Vision Transformer-based Framework for Automated Robotic Surgical Skill Assessment”, *Expert Systems with Applications*, vol. 258, p. 125064, 2024 (**SCI, IF 7.5, CAS Q1**).
- Yiming Zhang**, Ke Chen, Ying Weng, Zhuo Chen, Juntao Zhang, and Richard Hubbard, “An Intelligent Early Warning System of Analyzing Twitter Data Using Machine Learning on COVID-19 Surveillance in the US”, *Expert Systems with Applications*, vol. 198, 116882, 2022, (**SCI, IF 8.665**).

CAS Q1).

4. Juntao Zhang(#), **Yiming Zhang**(#), Ying Weng, Akram A Hosseini, Boding Wang, Tom Dening, Weinyu Fan, and Weizhong Xiao, "Applications of machine learning for computer-aided diagnosis of Parkinson's disease: progress and benchmark case study", *Artificial Intelligence Review*, vol. 58, no. 11, p. 1–58, 2025, (SCI, IF 13.9, CAS Q1). (# co-first author)
5. Ying Weng(#), **Yiming Zhang**(#), Wenxin Wang, and Tom Dening, "Semi-supervised Information Fusion for Medical Image Analysis: Recent Progress and Future Perspectives", *Information Fusion*, vol. 106, 102263, 2024, (SCI, IF 18.6, CAS Q1). (# co-first author)
6. Ke Chen, Ying Weng, Akram Hosseini, Tom Dening, Guokun Zuo and **Yiming Zhang**, "A comparative study of GNN and MLP based machine learning for the diagnosis of Alzheimer's Disease involving data synthesis", *Neural Networks*, 169, 442-452, 2024, (SCI, IF 7.8, CAS Q1).
7. Ke Chen, Ying Weng, Yueqin Huang, **Yiming Zhang**, Tom Dening, Akram A. Hosseini, and Weizhong Xiao, "A Multi-View Learning Approach with a Diffusion Model to Synthesize FDG PET from MRI T1WI for the Diagnosis of Alzheimer's Disease," *Alzheimer's & Dementia*, 2024 (SCI, IF 13.1, CAS Q1).
8. Chengtai Li, **Yiming Zhang**, Ying Weng, Boding Wang and Zhenzhu Li, "Natural Language Processing Applications for Computer-Aided Diagnosis in Oncology", *Diagnostics*, vol. 13, no. 2, p. 286, 2023 (SCI, IF 3.992).
9. Chengtai Li, Ying Weng, **Yiming Zhang** and Boding Wang, "A systematic review of application progress on machine learning-based natural language processing in breast cancer over the past 5 years", *Diagnostics*, vol. 13, no. 3, p. 537, 2023 (SCI, IF 3.992).
10. Ying Weng, and **Yiming Zhang**, "A Survey of Secure Time Synchronization", *Applied Sciences-Basel*, vol. 13, no. 6, p. 3923, 2023, (SCI, IF 2.838).
11. Zhe Liu, Ying Weng, **Yiming Zhang**, "A Computer Vision System for Automatic Edge Detection of Magnetic Grain Profile", *Computer Vision – ECCV 2024 Workshops, European Conference on Computer Vision (ECCV 2024)*, September 29–October 4, 2024, Milan, Italy.
12. Ran Fei, Ying Weng, **Yiming Zhang**, and Jonathan Lund, "Curve based Fast Detail Enhancement for Biomedical Images", *16th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP 2021)*, February 8-10, 2021, Virtual Conference.

Chinese Patents

- Ying Weng, Ke Chen, **Yiming Zhang**, A method and system for rating surgical skills based on explainable artificial intelligence, **Granted** on 11th November 2024 (Patent no: 202111287603.0).

Research Grants

1. **Project Title:** Intelligent Monitoring and Early Warning Technology for Water Ecological Environment based on Long Short-Term Memory Recurrent Neural Network (Ningbo Commonweal Programme Major Project)
Sponsoring Agency: Ningbo Science & Technology Bureau
Role: Co-Investigator
2. **Project Title:** Research and Clinical Application of Brain Tumor Multi-modality Explainable Artificial Intelligence System based on Medical Image and Digital Pathology(2022Z126, 2022 Ningbo Major S&T Programme)
Sponsoring Agency: Ningbo Science & Technology Bureau
Role: Core Member
3. **Project Title:** Research and Application of Deep Learning based Multi-Camera Optical Perspective Display for Laparoscopy (2019C50052)
Sponsoring Agency: Ningbo Science & Technology Bureau
Role: Core Member

Awards and Achievements

- 'Research Excellence Award' from the Artificial Intelligence and Optimization (AIOP) research group, University of Nottingham Ningbo China, 2025
- Doctoral Research Grant (5000 RMB) from University of Nottingham Ningbo China, 2021
- PhD Scholarship Award - Healthcare Scholarship (492450 RMB) from University of Nottingham Ningbo China, 2020

Professional Activities

- Reviewer for Journal of Artificial Intelligence Research
- Reviewer for Cancers
- Reviewer for Artificial Intelligence Review
- Reviewer for Scientific Reports
- Reviewer for Bioengineering
- Reviewer for Diagnostics
- Reviewer for Applied Science
- Reviewer for Biomedicines
- Reviewer for Mathematics
- Reviewer for BMC Medical Informatics and Decision Making
- Reviewer for Algorithms
- Reviewer for Applied Artificial Intelligence
- Reviewer for Data
- Reviewer for Information
- Reviewer for Future Internet
- Reviewer for AI Perspectives & Advances