

JIACONG MI

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Education

University of Glasgow Ph.D. in Public Health (AI for Science)	2026.4 – present Supervisor: Prof. Honghan Wu
Monash University Master of Information Technology Systems (Dual Degree Program)	2021.9 – 2024.6
Southeast University Master of Artificial Intelligence (Dual Degree Program) <i>Thesis: Research and Implementation of Medication Recommendation and Clinical Prediction Based on Electronic Health Records</i>	2021.9 – 2024.6 Supervisor: Prof. Jieyue He
Shandong Normal University Bachelor of Computer Science and Technology	2017.9 – 2021.6

Research Interests

Methodology	Biomedical AI, Foundation Models for Science, Graph Neural Networks, Self-supervised & Multimodal Learning, Interpretable AI
Applications	Longitudinal Electronic Health Records (EHR) Mining, AI-driven Drug Discovery, Clinical Decision Support Systems, Chronic Disease Management

Research Experience

- Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences** *Research Assistant* **2025.11 – 2026.4**
 - Developed an interpretable deep learning framework using EHR and continuous glucose monitoring (CGM) data to predict diabetes drug responses, achieving better performance than baseline models.
- neoX Biotech** *AI Drug Discovery Algorithm Intern* **2023.05 – 2023.08**
 - Proposed and developed a 3D molecular generation model leveraging protein pockets and pre-trained molecular representations, achieving better sampling performance on the Crossdocked dataset.
- Insilico Medicine** *Bioinformatics Intern* **2022.12 – 2023.01**
 - Optimized hERG ion channel prediction models for early cardiac toxicity assessment by experimenting with advanced molecular representations, including Graph Neural Networks (GNNs) and molecular fingerprints.

Publications

- Z. Li, G. Zhou, H. Li, **J. Mi**, J. Shi, and J. Shen. Deep learning-driven protein-ligand binding affinity prediction: Data, architecture, training and evaluation. *IEEE Transactions on Computational Biology and Bioinformatics*, 22(6):3419–3437, 2025.
- Y. Liu, Z. Zhang, **J. Mi**, S. Pan, T. Chen, Y. Guo, X. He, and J. Bian. Gatorclr: Personalized predictions of patient outcomes on electronic health records using self-supervised contrastive graph representation. *Journal of Biomedical Informatics*, 168:104851, 2025.
- J. Mi**, Y. Zu, Z. Wang, and J. He. Acdnet: Attention-guided collaborative decision network for effective medication recommendation. *Journal of Biomedical Informatics*, 2024.
- H. Pu, **J. Mi**, S. Lu, and J. He. Rokepg: Roberta and knowledge enhancement for prescription generation of traditional chinese medicine. In *2023 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*, pages 4615–4622. IEEE, 2023.
- Z. Wang, **J. Mi**, S. Lu, and J. He. Multimodal-learning for predicting molecular properties: A framework based on image and graph structures. *arXiv preprint arXiv:2311.16666*, 2023.
- Y. Zu, **J. Mi**, L. Song, S. Lu, and J. He. Finformer: A static-dynamic spatiotemporal framework for stock trend prediction. In *2023 IEEE International Conference on Big Data (BigData)*, pages 1460–1469. IEEE, 2023.

Awards

Southeast University Academic Scholarship Awarded for academic excellence at Southeast University.	2021, 2022
University of Glasgow Full Tuition Scholarship Awarded a full tuition fee scholarship at the University of Glasgow.	2026

Projects

TCM Knowledge Graph Tool | Python, Flask, HTML, JavaScript

2021.9 – 2021.11

- Developed a Traditional Chinese Medicine knowledge graph system supporting CRUD (create, read, update, delete) operations for efficient data management.
- Implemented Neo4j for graph storage and Flask for backend services, with HTML/JavaScript for frontend interface.

Technical Skills

Programming Languages

Python, L^AT_EX, Bash, Git

Frameworks & Tools

PyTorch, PyTorch Geometric, Deep Graph Library (DGL), TensorFlow, Scikit-learn

Deep Learning & AI

Transformer, GNN, CNN, RNN, Attention Mechanisms, Graph Embeddings

Languages

Chinese, English