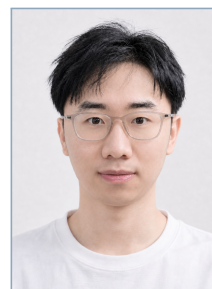


Zhaohan Meng

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🎓 Google Scholar | 🐙 GitHub | 🗄️ Hugging Face | 🔗 LinkedIn



Education

PhD in Computing Science — University of Glasgow, Glasgow, UK 2023 – Expected 2027.6

- Supervisors: Dr. Ke Yuan and Prof. Iadh Ounis
- Thesis: Knowledge-Grounded Large Language Models for Explainable and Agentic Biomedical Intelligence

BSc (Hons) in Computing Science — University of Glasgow, Glasgow, UK 2020 – 2023

- Supervisor: Prof. Zaiqiao Meng
- Dissertation: Heterogeneous Entity Representation Learning for Knowledge Graphs in Biomedical Science

Research Interests

- **AI Agents for Scientific Discovery:** Agent-native intelligence for multimodal pathology and clinical data analysis, with self-evolving agents learning from expert feedback and execution experience.
- **Computational Biology:** Representation learning, interpretable modelling, and benchmark development for biological systems, with a focus on molecular interactions and drug discovery.
- **Scientific Foundation Models:** Pre-training, domain adaptation, and post-training of foundation models for molecular and biomedical applications.

Research Experience

Visiting Research Scholar — Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA 2026.7 – 2027.2

- Loscalzo Laboratory. Supervisors: Dr. Hao Xu and Prof. Joseph Loscalzo
- Funded by University of Glasgow Travel Scholarships and Brigham and Women's Hospital.

Visiting PhD Researcher — Institute of Systems and Information Engineering, University of Tsukuba, Japan 2025.9

- Supervisors: Dr. Xiucai Ye, Prof. Zaiqiao Meng and Prof. Craig Macdonald
- Funded by the Pump Priming Research Partnership.

Laboratory Operations Manager — Glasgow AI4BioMed Lab, University of Glasgow 2025 – 2026

- Lab leads: Dr. Jake Lever, Dr. Kevin Bryson and Prof. Zaiqiao Meng

Graduate Teaching Assistant — University of Glasgow 2024 – 2026

- COMPSCI4039 — Programming (M)

Publications

1. **SSE-Bio: A Structured Self-Evolving Agent with Agentic Retrieval Policy for Multi-Hop Biomedical Reasoning**
Zhaohan Meng, Zaiqiao Meng, Siwei Liu, Hao Xu, Ke Yuan, Iadh Ounis.
EMNLP 2026 (CORE A*).  [Paper](#)  [Code](#)
2. **GraphMed-LT: Patient-Specific Graph Memory with Latent Clinical Thought Refinement for Multi-Turn Medical Conversations**
Zhaohan Meng, Zaiqiao Meng, Siwei Liu, Hao Xu, Ke Yuan, Iadh Ounis.
EMNLP 2026 (CORE A*).  [Paper](#)  [Code](#)
3. **ExplainBind: Explainable Physicochemical Determinants of Protein–Ligand Binding via Non-Covalent Interactions**
Zhaohan Meng, Zhen Bai, Ke Yuan, Jiangning Song, Yumeng Zhang, Jaime H. Cheah, Wei Jiang, Adam Skepner, Kevin J. Leahy, Iadh Ounis, William M. Oldham, Zaiqiao Meng, Hao Xu, Joseph Loscalzo.
bioRxiv, 2026.  [Paper](#)  [Code](#)  [Demo](#)  [Project Page](#)
4. **A Large-Scale Dataset and Benchmark: Do Protein–Ligand Models Learn Binding Sites or Just Binding Likelihood?**
Zhaohan Meng, Zhen Bai, Ke Yuan, Iadh Ounis, Zaiqiao Meng, Hao Xu, Joseph Loscalzo.
arXiv, 2026.  [Paper](#)  [Code](#)  [Dataset](#)
5. **FusionDTI: Fine-Grained Binding Discovery with Token-Level Fusion for Drug–Target Interaction**
Zhaohan Meng, Zaiqiao Meng, Ke Yuan, Iadh Ounis.
EMNLP 2025 (CORE A*).  [Paper](#)  [Code](#)  [Demo](#)  [Project Page](#)
6. **Heterogeneous Biomedical Entity Representation Learning for Gene–Disease Association Prediction**
Zhaohan Meng, Siwei Liu, Shangsong Liang, Bhautesh Jani, Zaiqiao Meng.
Briefings in Bioinformatics, 2024 (IF 7.7).  [Paper](#)  [Code](#)  [Demo](#)
7. **Sequence Pre-Training-Based Graph Neural Network for Predicting lncRNA–miRNA Associations**
Zixiao Wang, Shiyang Liang, Siwei Liu, **Zhaohan Meng**, Jingjie Wang, Shangsong Liang.
Briefings in Bioinformatics, 2023 (IF 7.7).  [Paper](#)  [Code](#)

Funding & Honours

- **Jim Gatheral Travel Scholarship**, University of Glasgow (£5000), 2026
- **David Fleming-Brown Travel Scholarship**, University of Glasgow (£400), 2026
- **Research Expense Stipend**, Brigham and Women's Hospital (US\$11,290), 2026
- **Conference Training Fund, Centre for Data Science AI**, University of Glasgow (£1750) 2026
- **Pump Priming Research Partnership Award**, Glasgow–Tsukuba (£2000), 2025

Research Community Contribution

Awesome-Self-Evolving-Agents — Biomedical Paper Curation Contributor

2025 – Present

- Open-source literature resource with 2.5k GitHub stars.
- Curated and categorised biomedical papers on self-evolving agents to broaden the repository's coverage of biomedical agent research.

Professional Activities

Conference Reviewer

- ACL Rolling Review (ACL / EMNLP, CORE A*), 2025, 2026
- International Conference on Learning Representations (ICLR, CORE A*), 2026
- ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR, CORE A*), 2026
- IEEE International Conference on Distributed Computing Systems (ICDCS, CORE A), 2025
- European Conference on Information Retrieval (ECIR, CORE A), 2025

Journal Reviewer

- *Bioinformatics* 2026

Volunteer

- Empirical Methods in Natural Language Processing (EMNLP 2026), Budapest, Hungary
- 46th European Conference on Information Retrieval (ECIR 2024), Glasgow, UK

Technical Skills

- **Languages:** Python, Java, JavaScript, SQL, HTML/CSS, $\LaTeX$
- **ML frameworks:** PyTorch, PyTorch Lightning, Hugging Face Transformers, NumPy, Pandas, SciPy
- **Methods:** LLM supervised fine-tuning, GRPO, retrieval-augmented agents, protein language models, contrastive learning
- **Infrastructure:** Distributed training (DDP/FSDP) on multi-node A100/GH200 clusters, Slurm, Weights & Biases, Git