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EDUCATION

PhD.,   Biomedical Informatics, 2024 - Present
             The Ohio State University, Columbus, OH, USA. (Qin Ma and Anjun Ma)
M.S.,   Biomedical, 2024
             Zhengzhou University, Henan, Zhengzhou, China. (Ying Peng and Xia Xue)
B.S.,   Software Engineering, 2021
             Zhengzhou University, Henan, Zhengzhou, China.

PROFESSIONAL EXPERIENCE

08/2024-present,   **Graduate Research Assistant**
                   Department of Biomedical Informatics at The Ohio State University, OH
                   ● Analyze bulk-level, single-cell, and spatial multi-omics datasets to derive meaningful insights for immuno-oncology research.

                   ● Developed deep learning frameworks to enable cross-species analysis of single-cell and spatial omics data, providing new opportunities to investigate conserved and divergent molecular mechanisms across organisms.

                   ● To establish a centralized AI-driven knowledgebase for integrating single-cell and spatial omics data across neurodegenerative diseases (ssKIND).

JOURNAL PUBLICATIONS

Full list: https://scholar.google.com/citations?user=kKMLVpUAAAAJ&hl=en
First and co-first author ([#])
1. **Wu, W**.[#], Liu, B. [#], Zhang, Q. [#], Zhang, X., Feng, P., Jia, Y., & Xue, X. (2025). Heterogeneity and efficacy of immunotherapy in multiple cancer: insights from a meta-analysis. Biological Procedures Online, 27(1), 17.

2. Si, Y[#]., **Wu, W.[#]**, Xue, X., Sun, X., Qin, Y., Li, Y., ... & Zheng, P. (2023). The evolution of SARS-CoV-2 and the COVID-19 pandemic. PeerJ, 11, e15990.
3. **Wu, W.[#]**, Wang, Y., Xu, S., & Yan, K. (2020, September). Sfnn: Semantic features fusion neural network for multimodal sentiment analysis. In 2020 5th International Conference on Automation, Control and Robotics Engineering (CACRE) (pp. 661-665). IEEE.

Contributing author

1. Yi Wang, Anjun Ma, No-Joon Song, Ariana E. Shannon, Yaa S. Amankwah, Xingyu Chen, **Weidong Wu**, Ziyu Wang, Abbey A. Saadey, Amir Yousif, Gautam Ghosh, Jay K. Mandula1, Maria Velegraki, Tong Xiao, Haitao Wen, Stanley Ching-Cheng Huang, Ruoning Wang, Christian M. Beusch, Abdelhameed S. Dawood, David E. Gordon, Mohamed S. Abdel-Hakeem, Hazem E. Ghoneim, Gang Xin, Brian C. Searle, Zihai Li[$].Proteostatic Stress Response Drives T Cell Exhaustion and Immune Evasion. Nature. 2025
2. Dong, H., Liang, C., Zhang, J., **Wu, W.**, Kumar, N., Liu, Z., Sun, Y., Liao, Z., Cheng, X., Yu, Y. et al., 2025. O-GlcNAc transferase plays dual antiviral roles by integrating innate immunity and lipid metabolism. Nature Communications, 16, pp.1-14.
3. Wang, X., Duan, M., Su, P.L., Li, J., Krull, J., Jin, J., Chen, H., Sun, Y., **Wu, W**., He, K. and Carpenter, R., 2025. Deep-learning-enabled multi-omics analyses for prediction of future metastasis in cancer. bioRxiv, pp.2025-05.
4. Jiang, Y., Wang, S., Feng, S., Wang, C., **Wu, W**., Huang, X., Ma, Q., Wang, J. and Ma, A., 2024. scGNN+: Adapting ChatGPT for Seamless Tutorial and Code Optimization. bioRxiv, pp.2024-09.
5. Ye, S., Li, C., Zhao, R. and **Wu, W**., 2019. NOAA-LSTM: A new method of dialect identification. In Artificial Intelligence and Security: 5th International Conference, ICAIS 2019, New York, NY, USA, July 26-28, 2019, Proceedings, Part I 5 (pp. 16-26). Springer International Publishing.

Journal reviewer:

2025,   **Heliyon, Guest Reviewer**

PRESENTATIONS

2025,

MENTORING

2025/08,   **Juile Zhu** (Undergraduate, OSU)
            B.S. in Mathematics and Neuroscience

AWARDS

SKILLS

- **Bioinformatics & Data Analysis**: Next-generation sequencing, proteomics, single-cell multi-omics data analysis, high-performance computing (R, Python, HPC systems)
- **Software Development**: Java Boot Spring, Vue, Flask.
- **Machine Learning & AI**: Pytorch.
- **Data Visualization**: Creation of impactful visualizations (Adobe Illustrator, ggplot2,BioRender)