

Weidong Wu

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CONTACT

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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 Velegriaki, 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

- Second place in the multimodal emotion recognition track of the 'KDDI' AI algorithm competition (Rank:2/456).
- China University Computer Challenge "Network Technology Challenge", Second Prize in Central China Region.
- ACM Programming Competition, Zhengzhou University, First Prize.
- "Coretronic Cup" Future Car Human-Machine Interaction Design Competition, 7 th (Top 0.1%)
- "Challenge Cup" National Competition of Extracurricular Academic Science and Technology Works for University Students, First Prize in Henan Province.

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, Sql.
- **Machine Learning & AI:** Pytorch.
- **Data Visualization:** Creation of impactful visualizations (Adobe Illustrator, ggplot2, BioRender)