WENBO WANG

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Education

Harvard University, John A. Paulson School of Engineering and Applied Sciences — **Cambridge, the United States**
Ph.D. student in Engineering Sciences — Sept. 2019-Aug. 2026 (Expected)
Master of Science in Engineering Sciences *en route* — Jun. 2023

Zhejiang University, Department of Chemistry, Chu Kochen Honors College — **Hangzhou, China**
Bachelor of Chemistry, Qiushi Honors Program — Sep.2015-Jul.2019

Research Experience

Broad Institute of Harvard and MIT — **Cambridge, the United States**
Research Assistant with Professor Xiao Wang — Sep.2021-present

Harvard University, John A. Paulson School of Engineering and Applied Sciences — **Boston, the United States**
Research Assistant with Professor Jia Liu — Sep.2021-present

Westlake University, School of Life Sciences — **Hangzhou, China**
Visiting Student in School of Life Science with Professor Yi Sun — Sep.2019-June.2021

University of Utah, Department of Chemistry — **Salt Lake City, the United States**
Research Scholar in Department of Chemistry with Professor Peter J. Stang — Feb.2018-Sep.2018

Zhejiang University, Department of Chemistry — **Hangzhou, China**
Research Assistant in State Key Laboratory of Chemical Engineering, Department of Chemistry, Center for Chemistry of High-Performance & Novel Materials with Professor Feihe Huang — Oct.2016-Jul.2019

Research Interests

- Agentic AI systems for biological discovery
- AI-driven modeling and interpretation of cellular organization and function
- *In situ* multi-omics for understanding biological systems across molecular, cellular, and tissue scales

Selected Publications

- **Wang, W. #**, Swain, S. #, Lee, J. #, Lin, Z. #, ... & Liu, J.* (2025). Agentic Lab: An Agentic-physical AI system for cell and organoid experimentation and manufacturing. Preprint at ***bioRxiv,*** in review.
- **Wang, W.#,** Lin, Z.#, ..., Alvarez-Dominguez, J.* & Liu, J.* (2025). Spatial transcriptomics AI agent charts hPSC-pancreas maturation in vivo. Preprint at ***bioRxiv***, in review.
- Li, Qiang#, Liu, R.#, Lin, Z.#, Zhang, X.#, **Wang, W.#,** …, Alvarez-Dominguez, J.* & Liu, J.* (2025). Cyborg islets: implanted flexible electronics reveal principles of human islet electrical maturation. ***Science,*** *391*(6787), eaeb3295.
- Lee, J.#, **Wang, W.#,** Li, Q., Lin, Z., Liu, R., Tang, Z., ... & Liu, J.* (2025). *In situ* graphene-seq: Spatial transcriptomics and chronic electrophysiological characterization of tissue microenvironments. ***Nature Communications***, 2026.
- Lee, J.#, Lin, Z. #, **Wang, W.#,** ... Liu, J.* (2026). DeviceAgent: An autonomous multimodal AI agent for flexible bioelectronics. Preprint at ***bioRxiv***, Preprint at ***bioRxiv,*** in review
- Lin, Z.#, **Wang, W.#,** Liu, R.#, Li, Q.#, Lee, J., Hirschler, C., & Liu, J.* (2025). Cyborg organoids integrated with stretchable nanoelectronics can be functionally mapped during development. ***Nature Protocols***, 1-32.
- Sessler, C. D. #, Zhou, Y. #, **Wang, W. #,** Hartley, N. D., Fu, Z., Graykowski, D., ... Wang, X.* & Liu, J.* (2022). Optogenetic polymerization and assembly of electrically functional polymers for modulation of single-neuron excitability. ***Science Advances***, *8*(49), eade1136.
- **Wang, W.#,** Sessler, C. D.#, Wang, X., & Liu, J.* (2024). In Situ Synthesis and Assembly of Functional Materials and Devices in Living Systems. ***Accounts of Chemical Research***, *57*(15), 2013-2026.
- *Corresponding authors.
  #Equal contribution.

For a full publication list, please see: https://scholar.google.com/citations?user=TIyfmcgAAAAJ&hl=en

Awards and Recognitions

- Zhejiang Provincial Scholarship, 2015-2016
- Scholarship for Outstanding Students, 2015-2017
- Excellent Student Scholarship in Zhejiang University, 2015-2017
- Scholarship for Outstanding Students in Basic Science, 2016-2018
- Research and Innovation Scholarship, 2017-2018
- Harvard Student Recognition of Teaching, 2022-2023
- Regeneron prize for creative innovation, Harvard nominee (two students each year), 2024
- Sky9 Fellowship, 2026

Invited Talks and Presentations

- The Harvard Materials Research Science and Engineering Center (MRSEC) seed meeting, Jan. 2023
- Human Islet Research Network (HIRN): STAgent: Autonomous spatial transcriptomics AI agent for Pancreatic Research and Beyond, July. 2025
- 21st Annual Broad Institute Scientific Retreat, July. 2025
- Guest Presenter, Smilow Center for Translational Research, University of Pennsylvania, Jan. 2025
- Guest Presenter, Broad Institute of MIT and Harvard, Dec. 2022

Professional Service

- Fellow, Agentic and Physical AI for Excellence in Science and Engineering, Harvard University, 2025-present
- Core team member, Biocosmo, 2024-present
- Member, American Chemical Society, 2025
- Poster judge, 21st Annual Broad Institute Scientific Retreat, Dec. 2025
- Harvard Topics in Bioengineering (TIB) Student Coordinator, 2023-2024
- Pre-Concentration Academic Advisors of Harvard University, 2024-2025
- Reviewer for journals and conferences: *PeerJ Computer Science*, *Heliyon*, *Gene Reports*, *Molecular Therapy*, *Journal of Cellular and Molecular Medicine*, *Biomedicine & Pharmacotherapy*, *BMC Bioinformatics*, *Frontiers in Immunology*, *Expert Systems*, *Open Medicine*, *Physiological Measurement*, *Biofabrication*

Teaching Experience

- BE131 Neuroengineering, 2022
  - Led weekly discussion sections, managed grading, and provided instruction to undergraduates.
  - Hosted weekly lab sessions and designed lab protocols for tissue clearance and fluorescence microscopy imaging.
  - Harvard Recognition of Teaching Award for outstanding teaching.