

Ziye Wang

Ph.D. Student in Computational Biology, University of California, Berkeley
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EDUCATION

University of California, Berkeley, Berkeley, CA Starting Fall 2026
Ph.D. in Computational Biology, Center for Computational Biology

Peking University, Beijing, China Sep 2022 – Jun 2026
B.S. in Bioinformatics, School of Life Sciences
B.S. in Mathematics and Applied Mathematics, School of Mathematical Sciences

RESEARCH INTEREST

Evolutionary Genomics, Population Genetics, Phylogenetics, Statistical Genomics

PUBLICATIONS

1. Chen, W., **Wang, Z.**, & Champer, J. (2026). Experimental and modeling demonstration of stronger population suppression by gene drive targeting *doublesex* from dominant female-sterile resistance alleles. *Nature Communications*. DOI: 10.1038/s41467-026-71397-w
2. **Wang, Z.**, & Zhang, C. (2025). An implementation of the Brownian motion model for Bayesian phylogenetic inference using continuous traits with missing states. *Paleobiology*. DOI: 10.1017/pab.2025.10088

PREPRINTS

1. **Wang, Z.**, & Champer, J. (2026). Optimal spatial release strategies for confined gene drives and *Wolbachia*. *bioRxiv*. DOI: 10.64898/2026.03.04.709515

RESEARCH EXPERIENCE

Fast species tree branch length estimation under the multispecies coalescent Mar 2026 – Jun 2026
Supervisor: Prof. Chao Zhang, Peking University

Inferring mutation spectrum evolution with ancestral recombination graphs Jul 2025 – Sep 2025
Supervisor: Prof. Rasmus Nielsen, UC Berkeley; Mentor: Dr. Yun Deng, Stanford

Bayesian phylogenetic inference using continuous traits with missing states Feb 2025 – Jun 2025
Supervisor: Prof. Chi Zhang, Chinese Academy of Sciences

Spatio-temporal optimization of gene drive release strategies Jul 2024 – Jan 2025
Supervisor: Prof. Jackson Champer, Peking University

Modeling a gene drive for population suppression Jul 2023 – Dec 2023
Supervisor: Prof. Jackson Champer, Peking University

TEACHING EXPERIENCE

Peer Tutor in Calculus, Linear Algebra, Probability and Statistics Sep 2023 – Jan 2026
School of Life Sciences, Peking University

TECHNICAL SKILLS

Programming Languages:

Python, R, C, MATLAB, Shell

Bioinformatics & Developer Tools:

SAMtools, BCFtools, VEP, Snakemake, Git, GitHub, Conda, Unix/Linux Command Line, HPC Environments