

# Bozitao Zhong | 钟博子韬

zbztzhz@gmail.com | GitHub | Google Scholar

## EDUCATION

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Shanghai Jiao Tong University, Shanghai, China  
Bachelor of Science in Bioinformatics

Sep 2016 | Jun 2020

Chinese University of Hong Kong, Hong Kong  
Master of Science in Electronic Engineering

Sep 2024 | Jun 2025

## RESEARCH EXPERIENCE

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### Protein Evolution Supported by Language Models and AlphaFold

Nov 2023 | Present

Shanghai Jiao Tong University

Supervisor: Prof. Liang Hong & Prof. Xiang Xiao

- Build a protein classification method using language model high-dimensional representations (HDR)
- Using the HDR to explain the adaptation mechanisms of piezophiles

### Protein Conformation Generation - AI × Dynamics

Jun 2023 | Jan 2024

Mila - Quebec AI Institute

Supervisor: Prof. Jian Tang

- Built generative models to sample diverse protein conformations
- Benchmarked conformation generators on fast-folding proteins

### Massive Protein Structure Prediction and Application - ParaFold

Jul 2021 | Feb 2022

Shanghai Jiao Tong University

Supervisor: Prof. Liang Hong & Prof. James Lin

- Optimized AlphaFold2 pipeline to achieve 14x acceleration, GitHub received 150 stars
- Predicted massive protein structures to provide insights into ancient metabolism

### Enzyme Function Prediction - Reactzyme

Jun 2024 | Present

Shanghai Jiao Tong University

Supervisor: Prof. Liang Hong

- Raised a novel task in relative field: using reaction to encode enzyme function
- Collected dataset and built new benchmark for enzyme-reaction retrieval task

## PUBLICATIONS

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### First/Co-First\* Author

- Wu, B.\*, Zhong, B.\* et al. *Under review*.
- Hua, C.\*, Zhong, B.\* et al. *NeurIPS 2024*.
- Cai, H.\*, Zhang, Z.\*, Wang, M.\*, Zhong, B.\* et al. *Nat Commun* **15**, 7785 (2024).
- Lu, J.\*, Zhong, B.\* & Tang, J. *ICML 2023 SPIGM workshop*.
- Zhao, W.\*, Zhong, B.\* et al. *Nat Commun* **13**, 7861 (2022).
- Zhong, B., Song, G. & Chen, H. F. *Int J Mol Sci* **23**, 11285 (2022).
- Zhong, B. et al. *HPC Asia 2022 IXPUG Workshop*.

### Others

- Li, M., Tan, Y., Ma, X., Zhong, B. et al. *NeurIPS 2024*.
- Lu, J., Zhong, B. et al. *ICLR 2024*.
- Tan, Y., Li, M., Zhong, B. et al. *J Chem Inf Model* **64**, 6338–6349 (2024).
- Zheng, L., Zhou, B., Yang, Y., Zan, B., Zhong, B. et al. *Chem Sci* **15**, 5612–5626 (2024).
- Zhou, B., Zheng, L., Wu, B., Yi, K., Zhong, B. et al. *Cell Discov* **10**, 1–12 (2024).
- Song, G., Zhong, B. et al. *J Chem Inf Model* **63**, 1602–1614 (2023).
- Zhang, Y., Zhang, Z., Zhong, B. et al. *NeurIPS 2023*.
- Shi, C., Wang, C., Lu, J., Zhong, B. & Tang, J. *ICLR 2023*.

## HONORS & SCHOLARSHIPS

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- Gold Medal, Nominate for Best New Application Project, 2019 iGEM Nov 2019
- Gold Medal, Nominate for Best Therapeutics Project, 2018 iGEM Nov 2018
- Gold Medal, 2017 iGEM Nov 2017
- Ivy Specialty Scholarship (16 in University) Nov 2019
- Hongyi Excellent Scholarship in Shanghai Jiao Tong University (10 in University) Oct 2018
- A-class Academic Excellent Scholarship in Shanghai Jiao Tong University (1 in Department) Nov 2017