

Zibin Zhao

Bioengineering PhD student at HKUST. Research across molecular diagnostics, computational biology, and deep learning.

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Education

2022–present

Ph.D., Bioengineering

The Hong Kong University of Science and Technology

- HKPFS + Redbird Award (2022)
- Hsing Lab

2018–2020

B.S., Biomedical Engineering

University of Melbourne

- First Class Honours

Experience

Co-founder & CEO

PealthMed Ltd

2021–2022

Research Assistant

The Hong Kong University of Science and Technology

- Wearable wireless real-time 12-lead ECG monitoring
- Filter bank + deep learning for heart-disease classification

2020–2021

Teaching Assistant

Shanghai Jiao Tong University

2018–2019

Laboratory Intern

Haihe Animal Science & Technology Co., Ltd.

Leadership

2020

President & Event Director

Chinese Music Group, University of Melbourne

Selected publications

2026

Nature Biotechnology

DNA-guided CRISPR-Cas12a effectors for programmable RNA recognition and cleavage

X Wu, WH Lam, **Z Zhao**, Y Cao, H Lin, X Feng, Y Zhai, IM Hsing

[Read article ↗](#)

[Earlier preprint ↗](#)

[Author correction ↗](#)

2026

Nature Communications, 17, 8376

Thermodynamically programmed one-pot CRISPR platform for point-of-care SNP genotyping

X Wu, Y Li, Y Cao, **Z Zhao**, H Lu, S Liang, GCY Lui, DPC Chan, IM Hsing

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[Code ↗](#)

[Earlier preprint ↗](#)

2025

Briefings in Bioinformatics, 26(6) [First author](#)

Structure-enhanced deep learning accelerates aptamer selection for small molecule families like steroids

Z Zhao, H Lin, HY Lau, H Chen, IM Hsing

[Read article ↗](#)

[Code ↗](#)

Technical skills

Python

C

MATLAB

LabVIEW

SolidWorks

Deep learning

Molecular dynamics

Languages

Mandarin and Cantonese (native); English
(professional proficiency).