





ZHAOYANG HUANG

 (+86)18406468040 hzy554598474@163.com Xi'an, China github.com/HuangDDU huangddu.github.io

EDUCATION

Phd candidate	Xidian University Major in Computer Science and Technology	Xi'an, China Sep 2024 – Present
MA	Xidian University (Honored Graduate) Major in Computer Science and Technology	Xi'an, China Sep 2021 – Jul 2024
BA	Jiangsu University of Science and Technology Major in Software Engineering	Zhenjiang, China Sep 2017 – Jul 2021

RESEARCH INTERESTS

Single cell omics data analysis, algorithm and modeling tool development for cell fate predicting

PUBLICATIONS

- [1] **Zhaoyang Huang**, Xinyang Guo, et al. (2024). Accurate RNA velocity estimation based on multibatch network reveals complex lineage in batch scRNA-seq data. BMC biology, 22(1), 290([link](#)).
- [2] **Zhaoyang Huang**, ZhiChao Xiao, et al. (2025). Computational approaches for predicting drug-disease associations: a comprehensive review. Frontiers of Computer Science, 19(5), 1-15. ([link](#)).
- [3] **Zhaoyang Huang**, Shengjian Chen, et al. (2023). Predicting new drug indications based on double variational autoencoders. Computers in Biology and Medicine, 164, 107261([link](#)).
- [4] Xinyang Guo, **Zhaoyang Huang**, et al. (2024). Highly Accurate Estimation of Cell Type Abundance in Bulk Tissues Based on Single-Cell Reference and Domain Adaptive Matching. Advanced Science, 11(7), 2306329([link](#)).

PREPRINTS

- [5] **Zhaoyang Huang**, Haonan Ma, et al. (2025). CellFateExplorer: An integrated platform for exploring cell fate. bioRxiv, 2025.02.04.636565([link](#)).

RESEARCH EXPERIENCE

Computational Bioinformatics institute, Xidian University

(supervised by Prof. LiangYu)

Xi'an, China

Sep 2021 –Present

- Developed a novel algorithm for predicting cell differentiation trajectories using single-cell RNA-seq data.
- Analyzed mouse spinal cord tissue scRNA-seq datasets, leading to the identification of key biomarkers for injury (Collaborated with Xijing Hospital and Second Affiliated Hospital of Xi'an Jiaotong University).

SELECTED AWARDS AND HONORS

- Outstanding graduates, Xidian University. Jun 2024
- CodeCraft Game 3rd prize in northwestern area, HUAWEI. Apr 2024
- Enterprise sholarship of Xiaomi, Xidian University. Dec 2023
- BioOS open source Game 3rd prize, ByteDance & Guangzhou Laboratory. Nov 2023
- National encouragement scholarship, Jiangsu University of Science and Technology. Dec 2018 & Dec 2019

SKILL

- Language: **Chinese** (Native), **English** (Proficient).
- Technical Skills:
 - Programming Language: Python, R, C++, Java, HTML/CSS/JS.
 - Computer skills: Operating Systems, Computer Networks, Data Structures, Linux.
- Research Skills:
 - Single-cell omics data analysis, Machine Learning, Graph Mining.
 - Scientific Reading &Writing, Literature Review, Science Frontier Tracking, Data Visualization.

SERVICES

- Teaching Assistant for Data Mining Course, Xidian University: Assisted in course design, graded assignments, and conducted tutorial sessions for over 100 students. 2022 - 2024
- Volunteer Teacher for Primary School Computer Course, Xinxiang, China: Designed and delivered basic computer literacy lessons to pupils. Jul 2023