

# ZIHENG DUAN

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## EDUCATION

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### University of California, Irvine

Irvine, USA

Ph.D. in Computer Science

Sep 2021 – Present

- GPA: 3.93/4.00
- Award: Dean's Fellowship (\$10K)

### Zhejiang University

Hangzhou, China

B.E. in Control Science and Engineering

Sep 2016 – Jun 2020

- GPA: 3.74/4.00 (top 15%)
- Admitted on basis of performance on the National College Admissions Exam (top 0.1%)
- Double Major: Computer Science and Technology, Chu-Kochen Honors College
- Selected award: Research and Innovation Scholarship (Ranking of research and innovation: 5/77)

## SELECTED PUBLICATIONS ([SEE FULL LIST](#))

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1. **Z Duan** and J Zhang, et al., “iMIRACLE: an Iterative Multi-View Graph Neural Network to Model Intercellular Gene Regulation from Spatial Transcriptomic Data,” under review, *ISMB-2024*.
2. **Z Duan** and J Zhang, et al., “Impeller: A Path-based Heterogeneous Graph Learning Method for Spatial Transcriptomic Data Imputation,” under 2<sup>nd</sup> round of review, *Bioinformatics*.
3. **SCORCH Consortium**, “Single-cell genomics & regulatory networks for 388 human brains,” under 2<sup>nd</sup> round of review, *Science*.
4. **Z Duan** and J Zhang, et al., “scENCORE: leveraging single-cell epigenetic data to predict chromatin conformation using graph embedding,” 2024-02-20, *Briefings in Bioinformatics*.
5. **Z Duan**, C Lee, J Zhang, “ExAD-GNN: Explainable Graph Neural Network for Alzheimer's Disease State Prediction from Single-cell Data,” 2023-10-12, *APSIPA Trans. Signal Inf. Process*.
6. **Z Duan** and J Zhang, et al., “iHerd: an integrative hierarchical graph representation learning framework to quantify network changes and prioritize risk genes in disease,” 2023-09-11, *PLOS CB*.
7. **Z Duan**, H Xu, Y Wang, Y Huang, A Ren, Z Xu, Y Sun, W Wang, “Multivariate time series classification with hierarchical variational graph pooling,” 2022-08-02, *Neural Networks*.
8. **Z Duan**, H Xu, Y Huang, J Feng, Y Wang, “Multivariate Time Series Forecasting with Transfer Entropy Graph,” 2022-07-02, *Tsinghua Science and Technology*.
9. **Z Duan**, Y Wang, W Ye, Q Fan, X Li, “Connecting Latent Relationships over Heterogeneous Attributed Network for Recommendation,” 2022-03-21, *Applied Intelligence*.
10. Y Wang, **Z Duan**, Y Huang, H Xu, J Feng, A Ren, “MTHetGNN: A Heterogeneous Graph Embedding Framework for Multivariate Time Series Forecasting,” 2021-12-18, *Pattern Recognition Letter*.
11. H Xu, **Z Duan**, Y Wang, J Feng, R Chen, Q Zhang, Z Xu, “Graph partitioning and graph neural network based hierarchical graph matching for graph similarity computation,” 2021-06-07, *Neurocomputing*.
12. Y Wang, **Z Duan**, B Liao, F Wu, Y Zhuang, “Heterogeneous Attributed Network Embedding with Graph Convolutional Networks,” 2019-07-17, *AAAI-2019*.

## SELECTED AWARDS AND HONORS

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- Research and Innovation Scholarship, Zhejiang University 2019
- Merit Student, Zhejiang University (won three times) 2017~2019
- Academic Excellence Scholarship, Zhejiang University (won three times) 2017~2019

## SERVICES

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### Teaching

- Reader in ICS 178 (Fall 2021), ICS 178 (Winter 2021), ICS 6D (Spring 2022).

### Review

- Journal Reviewer: IEEE TPAMI, Information Science, Pattern Recognition, Knowledge-Based Systems, Neurocomputing, IEEE Access, Reliability Engineering & System Safety, Gene, Heliyon.
- Conference Reviewer: AIMHC-2024 (PC member), ISMB-2024.