

Qingyang Yin

Phone: +1 (213) 431 9881 Email: yinq@usc.edu Personal Website: <https://qyyin0516.github.io/>

Address: RRI 416D, 1050 Childs Way, Los Angeles, CA 90089

Education

Department of Quantitative and Computational Biology, University of Southern California Los Angeles, CA, USA
Ph.D. Student in Computational Biology and Bioinformatics, GPA: 3.97/4.0 Aug. 2021-present

Additional: 5 computational classes taken from M.S. in Computer Science.

Berkeley Global Access Program, University of California, Berkeley Berkeley, CA, USA
Visiting Student, GPA: 4.0/4.0 Aug. 2019-Dec. 2019

Department of Automation, Xiamen University Xiamen, Fujian, China
B.E. in Automation, GPA: 90.85/100, Ranking: 1/81 Sep. 2017-Jun. 2021

Publications

- Yin, Q., Chen, L. (2024). CellTICS: an explainable neural network for cell-type identification and interpretation based on single-cell RNA-seq data. *Briefings in Bioinformatics*, 25(1): bbab449.
- Yin, Q., Wang, Y., Guan, J. & Ji, G. (2022). scIAE: an integrative autoencoder-based ensemble classification framework for single-cell RNA-seq data. *Briefings in Bioinformatics*, 23(1): bbab508.
- Guan, J., Wang, Y., Lin, Y., Yin, Q., Zhuang, Y. & Ji, G. (2021). Cell type-specific predictive models perform prioritization of genes and gene sets associated with autism. *Frontiers in Genetics*, 11, 1778.

Research Interests

- High-throughput sequencing data analysis
- Biologically interpretable deep learning

Experience

Teaching assistant, University of Southern California Jan. 2024-present
● Holding weekly discussion sessions, holding office hours, and grading homework and exams for QBIO 305: Statistics for Biological Sciences

Research assistant, University of Southern California Aug. 2022-present
● Developed CellTICS, an explainable neural network for cell-type identification for single-cell RNA-seq data
● Working on analyzing cancer dependency data to identify cancer driver mutations and genes

Part-time student supervisor, Xiamen University Jul. 2020-Jun. 2021
● Dealt with student affairs as a helper of full-time student supervisor.

Undergraduate researcher, Xiamen University Feb. 2020-Jun. 2021
● Developed scIAE, an integrative autoencoder-based ensemble classification framework for single-cell RNA-seq data

Skills

- **Programming:** Python, C/C++, Java, SQL
- **Frameworks & Tools:** TensorFlow, PyTorch, Keras, R, MATLAB, Unix/Linux, LaTeX, Git

Awards and Honors

- Outstanding graduate at Xiamen University (top 10%) Jun. 2021
- Jixin-Engine special scholarship (top 1%) Apr. 2021
- Meritorious winner of 2020 mathematical contest in modeling Apr. 2020
- Zhongxian Huang scholarship (top 5%) Mar. 2020
- First prize of Fujian province of contemporary undergraduate mathematical contest in modeling Dec. 2019
- National scholarship (top 2%) Sep. 2018