JIAQI ZHANG

jiaqi_zhang2@brown.edu www.jiaqiz.site

EDUCATION

Southeast University, China *Sep. 2015 - Jun. 2020*
B.S., Software Engineering GPA: **3.56**/4.00

Brown University, United States *Sep. 2021 - Present*
Ph.D., Computer Science

RESEARCH INTEREST

Bioinformatics: model interpretation, single-cell data analysis
Machine Learning: large-scale optimization, probabilistic graphical model

RESEARCH EXPERIENCE

[1] **Jiaqi Zhang**, Erica Larschan, Jeremy Bigness, and Ritambhara Singh. scNODE: Generative Model for Temporal Single Cell Transcriptomic Data Prediction. *Under RECOMB review.*

[2] **Jiaqi Zhang** and Ritambhara Singh. Investigating the Complexity of Gene Co-expression Estimation for Single-cell Data. *Journal of Machine Learning for Modeling and Computing*, 2023.

[3] Beilun Wang, **Jiaqi Zhang**, Haoqing Xu, and Te Tao. Fast and scalable learning of sparse changes in high-dimensional graphical model structure. *Neurocomputing*, 2022.

[4] Qianli Yang, Zhongqiao Lin, Wenyi Zhang, Jianshu Li, Xiyuan Chen, **Jiaqi Zhang**, and Tianming Yang. Monkey plays Pac-Man with compositional strategies and hierarchical decision-making. *Elife*, 2022.

[5] Beilun Wang, **Jiaqi Zhang**, Yan Zhang, Meng Wang, and Sen Wang. Scalable Estimator for Multi-task Gaussian Graphical Models Based in an IoT Network. *ACM Transactions on Sensor Networks*, 17(3), June 2021.

[6] (**Selected Abstract**) Qianli Yang, **Jiaqi Zhang**, Jianshu Li, Wenyi Zhang, Ce Ma, and Tianming Yang. Monkey can play Pac-Man with dynamical hybrid strategy. *Computational and Systems Neuroscience (Cosyne)*, 2021.

[7] **Jiaqi Zhang**, Meng Wang, Qinchi Li, Sen Wang, Xiaojun Chang, and Beilun Wang. Quadratic Sparse Gaussian Graphical Model Estimation Method for Massive Variables. *International Joint Conferences on Artificial Intelligence Organization (IJCAI)*, 2020.

PROJECT EXPERIENCE

Dropout-Aware Weighted NMF on scRNA-seq Data 2022
◇ Course final project for *CS2952Q Robust Algorithms for Machine Learning.*

Disease Prediction Using Deep Learning Methods 2022
◇ Course final project for *CS2470 Deep Learning*, collaborated with Atishay Jain and Tassallah Amina Abdullahi.

A Distributed Repaying Loan Ability Evaluating System Based on Gradient Boosting Machine 2018
◇ Responsible for software architecture and backend modules implementation.
◇ Project for a seminar course; the third prize.

An Employee Management System 2017

◇ Responsible for software architecture and core modules implementation.

◇ Project for a seminar course; the third prize.