

Haixia Shang

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Birthday: 1993-03-10

Gender: female

Nation: China

NO.17923 Jingshi Road, Jinan 250061, Shandong, China

Education:

2016.6. B.S. Shandong University (Biomedical Engineering)

2021.6. Ph.D.(expected) Shandong University (Biomedical Engineering)

Research interests:

- Computational biology and bioinformatics
- Omics data analysis (bulk RNA-seq, single cell RNA-seq data), multi-omics data integration
- Developing methods/algorithms to detect candidate diseases genes/pathways/modules of complex diseases
- Machine learning and deep learning

Skills:

Programming: R/Python/Matlab

Languages: Chinese native, English (professional)

National Computer Rank Examination Level2 (C language)

Others: office/shell

Awards and honors:

- 2013 2012 Outstanding Communist Youth League member, Shandong University
- 2013 Third -class Scholarship for outstanding students, Shandong University
- 2013 National Inspirational Scholarship, Shandong University
- 2014 Second class scholarship for outstanding students, Shandong University
- 2015 Second prize of Shandong Internet of Things Competition, Shandong Province
- 2015 Third-class scholarship for outstanding students, Shandong University
- 2015 National Inspirational Scholarship, Shandong University
- 2017 Master's scholarship of Shandong University in 2017, Shandong University
- 2017 Outstanding graduate students, Shandong University
- 2019 First-class scholarship for doctoral students, Shandong University
- 2019 Outstanding graduate student, Shandong University
- 2020 Excellent paper award of 2020 postdoctoral artificial intelligence development and application forum, China Postdoctoral Science Foundation
- 2020 Gidefa social scholarship for doctoral students, Shandong University

Grants:

1. National Science Foundation of China, NO. 61973190, Bioinformatics method for discovering complex disease markers by integrating multi-level omics data, 2020.01-2023.12, co-investigation
2. National Science Foundation of China, NO. 82072014, Research on several key issues of wearable ECG signal processing and its application in atrial fibrillation detection, 2020.01-2024.12, in pre-research
3. Key Research and Development Plan of Shandong Province, NO. 2018GSF118133, Quality assessment of ambulatory ECG and application of multi time scale analysis, 2018.01-2020.12, co-investigation

Reviewers:

1. IEEE Journal of Biomedical and Health Information
2. Computers in Biology and Medicine

Publications:

1. **Haixia Shang**, Zhiping Liu, Prioritizing disease genes from multilayer regulatory networks by tensor-based integration of multi-type single cell RNA-seq data, In submission.

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2. **Haixia Shang**, Zhiping Liu, Prioritizing network biomarkers of cancer by phenotype-driven module detection and ranking, In submission.
 3. **Haixia Shang**, Zhiping Liu, Network-based prioritization of cancer genes by integrative ranks from multi-omics data, *Computers in Biology and Medicine*, 119: 103692, 2020.
 4. **Haixia Shang**, Zhiping Liu, Prioritizing type 2 diabetes genes by weighted PageRank on bilayer heterogeneous networks, *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2019. DOI: 10.1109/TCBB.2019.2917190.
 5. **Haixia Shang**, Shoushui Wei, Feifei Liu, Dingwen Wei, Lei Chen, and Chengyu Liu, An improved sliding window area method for T Wave Detection, *Computational and Mathematical Methods in Medicine*, vol. 2019, Article ID 3130527.
 6. Kehui Yang, Jun Ren, Xin Li, Zheng Wang, Li Xue, Sumei Cui, Wentao Sang, Tonghui Xu, Jian Zhang, Jieqiong Yu, Zhiping Liu, **Haixia Shang**, Jiaojiao Pang, Xiaoran Huang, Yuguo Chen, and Feng Xu, Prevention of aortic dissection and aneurysm via an ALDH2-mediated switch in vascular smooth muscle cell phenotype, 2020, *European Heart Journal* (2020), 41, 2442-2452.
 7. **Haixia Shang**, Zhiping Liu, Prioritizing congenital heart disease genes from transcriptome and interactome via PageRank, *Proceedings of 2018 IEEE 8th Annual International Conference 2018*, pp. 424-429.
 8. **Haixia Shang**, Shoushui Wei, Feifei Liu, Lei Zhang and Chengyu Liu, Performance evaluation for the sliding area-based T wave detection method on the QT database, *Proceedings of 2017 Chinese Automation Congress (CAC) conference*, 2017, pp. 1792-1797.

Patents:

- Shoushui Wei, **Haixia Shang**, Feifei Liu, A T-wave detection method, ECG data analysis method and device. Grant Notice No: CN 107622259 B

Academic Conference:

- Oct, 2017, 2017 CAC, Oral, "Performance evaluation for the sliding area-based T wave detection method on the QT database"
- Jul, 2018, 2018 IEEE CYBER, Oral, "Prioritizing congenital heart disease genes from transcriptome and interactome via PageRank"
- Aug, 2018, 2018 ISB, Oral, "Prioritizing type 2 diabetes genes by weighted PageRank on bilayer heterogeneous networks"
- Oct, 2020, 2020 postdoctoral artificial intelligence development and application forum, Oral, "Network-based prioritization of cancer genes by integrative ranks from multi-omics data"

Upon Requested:

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