Haixia Shang

Birthday: 1993-03-10

Gender: female

Nation: China

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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.

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 transcriptone 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 transcriptone and interactome via PageRank”
- Aug, 2018, 2018 ISB, Oral, “Prioritizing type 2 diabetes genes by weighted PageRank on bilayer heterogeneous networks”

Upon Requested:

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