Yujia Wang

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Research Interests

- AI for good + real-world data-driven problems.
- Undertand and predict human behavior in order to provide better solutions for society.
- Leverage domain knowledge or theoretical models, such as game theory, to enhance neural network methods.

Education

Beijing Institute of Technology [Project 985] Beijing, China

Computer Science | Master's degree (work in progress) | Supervisor: Haoran Yu 2021.9 – Present

- GPA: 3.55/4.00
- Second-class Freshman Scholarship | First-class Academic Scholarship | Excellent Student Leader of BIT

Huazhong Agricultural University [Project 211] Wuhan, China

Computer Science| Bachelor's degree (Honors) 2016.9 – 2020.6

- GPA: 3.45/4.00 (<15%)
- Merit Student and Excellent League Member (3 years in a row) | Excellent Student Leader of HZAU

Research Experience

[1] Predicting Real-World Penny Auction Durations by Integrating Game Theory and Machine Learning 2022

- We focus on the interactions among real bidders in penny auctions and develop a three-stage framework to predict the distributions of auction durations.
- Game theory-based and machine learning-based prediction approaches have their own drawbacks in predicting human behavior in strategic environments. Our framework integrates these two methods to address these weaknesses.
- In preparation to be submitted to AAAI2024.

[2] NUS Summer Workshop: Depressive Community Detection and Analysis 2019.7 – 2019.8

- It's one of the summer programs at the National University of Singapore. The topic is "Mining Communities in Big-Data with Algorithms and Computational Thinking" supervised by Professor Hon-Wai Leong.
- As the team leader, I proposed and participated in the research project "Depressive Community Detection and Analysis". We aim to construct a social network of Weibo users based on text similarity, in order to identify potential "depressive" groups through community analysis.
- Personal grade is A- (<50%).

[3] AFSBN: A Method of Artificial Fish Swarm Optimizing Bayesian Network for Epistasis Detection 2017.10 – 2019.10

- I participated in the research as the co-first author. The article is published in IEEE/ACM Transactions on Computational Biology and Bioinformatics(SCI, IF=3.702, CCF B, DOI: 10.1109/TCBB.2019.2949780)
- With mutual information and the Bayesian method, we aim to predict the interactions between genes (epistasis).
- The article was awarded as one of the "Top Ten Innovations and Entrepreneurship Projects" (university level) in 2019.

Language

- CET-4: 598
- CET-6: 601