

Jingrui Wang

Master Student

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EDUCATION

2021.09 - present

Changchun University

Master's Degree in Information Security

School of Network Security

2017.09 - 2021.06

Hangzhou Dianzi University

Bachelor's Degree in Information Security

School of Cyberspace Security

WORK EXPERIENCE

2022.07 - present

Algorithm Engineer Intern

Zhejiang Lab, HangzhouChina

- Built multi-agent models for the simulation platform of the project team.
- Participated in the multi-agent research of the project team as a research assistant.
- Conducted research on a variety of issues and write corresponding research reports (e.g., platform functional requirements, common famous simulation modeling platforms, simulation modeling methods for various topics, etc.).

RESEARCH INTERESTS

- Computational Communication
- Computational Social Science
- Network Science
- Epidemic Spreading
- Game Theory

PUBLICATIONS

*: Corresponding Author

1. **Wang J.**, Jin X., Yang Y., et al. The spread of epidemic under voluntary vaccination with heterogeneous infection rates[J]. International Journal of Modern Physics C (SCI Chinese Academy of Sciences ranking Q4, IF=1.353), 2021, 32(03): 2150037.
2. An T., **Wang J.**, Zhou B., et al. Impact of strategy conformity on vaccination behaviors[J]. Frontiers in Physics (SCI Chinese Academy of Sciences ranking Q3, IF=3.718), 2022: 735.
3. An, T., Chen, Y., Chen, Y., Ma, L., **Wang, J.**, & Zhao, JI. A machine learning-based approach to ER α bioactivity and drug ADMET prediction[J]. Frontiers in Genetics (SCI Chinese Academy of Sciences ranking Q3, IF=4.772), 2023, 13: 1087273.
4. Ying X., **Wang J.**, Jin X., et al. Temporal-spatial perception adjustment to fitness enhances the cooperation in the spatial prisoner's dilemma game[J]. Frontiers in Physics (SCI Chinese Academy of Sciences ranking Q3, IF=3.718), 2023, 11: 389.
5. Xu, H., Zhang, Y., Jin, X.*, **Wang, J.***, & Wang, Z. The Evolution of Cooperation in Multigames with Uniform Random Hypergraphs[J]. Mathematics (SCI Chinese Academy of Sciences ranking Q3, IF=2.592), 2023, 11(11): 2409.

6. **Wang J.**, Zhang H., Jin X., et al. Subsidy policy with punishment mechanism can promote voluntary vaccination behaviors in structured populations. *Chaos, Solitons & Fractals*, (SCI Chinese Academy of Sciences ranking Q1 TOP, IF=7.8), 2023, 174: 113863.

7. Jin X., Tao Y., **Wang J.*** et al. Strategic use of payoff information in k-hop evolutionary Best-shot networked public goods game. *Applied Mathematics and Computation* (SCI Chinese Academy of Sciences ranking Q1 TOP, IF=4.0), 2023, 459: 128271.

MANUSCRIPTS SUBMITTED

*: Corresponding Author

1. **Wang J.**, Zhang H., An T., et al. Effect of vaccine efficacy on vaccination behavior with adaptive perception. *Applied Mathematics and Computation* (SCI Chinese Academy of Sciences ranking Q1 TOP, IF=4.392), 2023, **under review**.
2. Chen Q., Jin X., **Wang J.**, et al. Escape from source detection: a safe node selection strategy. *Expert Systems with Applications* (SCI Chinese Academy of Sciences ranking Q1 TOP, IF=8.665), 2023, **decision in process**.
3. An T., Wu P., **Wang J.**, et al. The relationship between teaching experience and teaching outcomes in online teaching during the epidemic: the mediating role of teaching engagement. *PSYCHOLOGY IN THE SCHOOLS* (SSCI Chinese Academy of Sciences ranking Q4, IF=1.923), 2023, **third revision**.

MANUSCRIPTS IN PREPARATION

1. Synergistic effects of tunable loners' payoff and self-regarding reinforcement learning on the spatial public goods game, Manuscript in writing.
2. Chinese irony recognition in zero-sample cross-language transfer, Manuscript in programming and experimentation.
3. Public opinion analysis combined with causal inference: A case study of online public opinion in the early stage of COVID-19 in China, Manuscript in programming and experimentation.

SKILLS

- Programming Skill: Python, C++, Java, Linux, PHP and GitHub.
- Data Science and Machine Learning: statistics, data visualization, deep learning, and natural language processing
- Softwares: Word, PPT, Visio, Latex, Origin, SPSS, AMOS, and Netlogo.
- Language: Chinese, English.
- Network Game and Multi-agent System: evolutionary game theory, network science, agent based modeling, epidemic modeling, opinion dynamic, and reinforcement learning.

AWARDS

- Hangzhou Dianzi University second-class scholarship (Two times), and third-class scholarship.
- Changchun University first-class scholarship
- H Award, United States Mathematical Contest in Modeling, 2019
- Third prize, Huawei Cup Mathematical Modeling Contest, 2021
- Third prize, Mathorcup Big Data Competition, 2022