

## Yujia Wang

Beijing, China

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<https://yogawang7.github.io>

### EDUCATION

#### Beijing Institute of Technology

*M.Res., Computer Science (ongoing)*

Supervisor: *Haoran Yu*

GPA: 3.70/4.00

Beijing, China

2021 - Present

#### Huazhong Agricultural University

*B.S., Computer Science (cum laude)*

Supervisor: *Jianxiao Liu*

GPA: 3.47/4.00

Wuhan, China

2016 - 2020

### RESEARCH INTERESTS

#### AI for social good.

- Develop and deploy AI solutions to address real-world data-driven problems and create more social impact.
- Employ an interdisciplinary approach, such as integrating insights from psychology, sociology, and economics, to make AI-based solutions explainable and insightful.

### PUBLICATIONS

*Authors marked with \* are my supervisors. Authors marked with # have equal contributions.*

**Yujia Wang**, Haoran Yu\*. "Predicting Human Behavior by Integrating Game Theory and Machine Learning." *Under review*.

Liguang Wang#, **Yujia Wang**#, Yi Fu, Yunge Gao, Jiawei Du, Chen Yang, and Jianxiao Liu\*. "AFSBN: A Method of Artificial Fish Swarm Optimizing Bayesian Network for Epistasis Detection." *IEEE/ACM transactions on computational biology and bioinformatics* 18, no. 4 (2019): 1369-1383.

### RESEARCH EXPERIENCE

#### Predicting Human Behavior by Integrating Game Theory and Machine Learning

*Beijing Institute of Technology | Supervisor: Haoran Yu*

2021.11-Present

- Developed a three-stage framework integrating game theory and machine learning to predict human behavior in strategic environments (e.g., auctions).
- This framework outperformed game theory-based approaches and machine learning-based approaches on synthetic and real data even when there exists a large domain shift.

## **NUS Summer Workshop:**

### **Mining Communities in Big-Data with Algorithms and Computational Thinking**

*National University of Singapore | Supervisor: Prof. Hon-Wai Leong*

2019.7-2019.8

- Proposed and designed the project of *Depressive Community Detection and Analysis* and got a personal grade of A-.
- Built a social network of Weibo (China's equivalent of Twitter) users based on text similarity and utilized community detection algorithms to identify potential "depressive" groups and their features (e.g., possible causes of depression).

### **AFSBN: A Method of Artificial Fish Swarm Optimizing Bayesian Network for Epistasis Detection**

*Huazhong Agricultural University | Supervisor: Jianxiao Liu*

2017.11-2019.11

- Aimed to detect the interactions between genes (e.g., epistasis) by optimizing the structure of the Bayesian Network using the Artificial Fish Swarm Algorithm.
- This method worked well in simulated data and real AMD data.

## INTERNSHIP

### **Research Institute of Taikang Insurance Group**

*Data Scientist*

Beijing, China

2023.8-Present

- Applied machine learning techniques to analyze data on invoices and insurance cases, identifying potential invoice reversals that could lead to insurance fraud. Cleaned data in Neo4j Database and investigated potential fraud communities.
- Improved prediction accuracy by 3 times compared to previous methods. Discovered new characteristics of insurance fraud.

## AWARDS AND SCHOLARSHIPS

First-Class Academic Scholarship from Beijing Institute of Technology . . . . .	2022
Freshman Scholarship from Beijing Institute of Technology . . . . .	2021
Bachelor's Degree with Highest Honors from Huazhong Agricultural University . . . . .	2020
Merit Student (3 years in a row) from Huazhong Agricultural University . . . . .	2016-2019
Second Prize in the National English Competition for College Students (Top 3%) . . . . .	2018

## TECHNICAL

### **Languages**

English (fluent), Chinese (native).

### **Programming Skills**

Python, Pytorch, R, and Sql.

### **Research Software and Skills**

Git, Visio, and L<sup>A</sup>T<sub>E</sub>X