Rui Li (黎睿)

📞 (+86) 185-9328-6319 · ✉ liruil9@ruc.edu.cn · ⌂ https://fexas.github.io/

I am Rui Li, an undergraduate student in the Special Pilot Class in Mathematics and Economics at Renmin University of China. This unique program provides an interdisciplinary curriculum spanning mathematics, economics, and computer science. Over my three years in the program, I have discovered that I excel in and feel passionate about fields that integrate mathematics, such as machine learning and game theory. In contrast, I do not demonstrate the same level of skill or interest in less technical areas like political economy. Given this self-assessment, I aim to pursue a program aligned with my strengths and interests in mathematical and technical disciplines. This will allow me to build on my proven skills in these energizing subjects.

🎓 Education

2023.05 2020.09	**Renmin University of China** · Special Pilot Class in Mathematics and Economics GPA: 3.69 / 4.00 · Rank: 30% (overall); GPA: 3.84 / 4.00 · Rank: 1% (Mathematics)

</> Research Experience

Asset Pricing via Machine Learning	**Personal project**	2023.03 – 2023.06

Advisor: Lei Ge

Machine learning

> Developed machine learning models for stock return prediction, including Lasso, LightGBM and NN
> Compiled dataset from WRDS and public sources covering 6000+ stocks and 60+ financial metrics
> Construced rolling window training and hyperparameter tuning to adapt models over time

Ranked as an **exemplary project** by RUC's Big Data and AI Platform

Customized Blockchain System for Inter-Organizational Processes	**Research Assistant**	2022.09 – 2023.07

Advisor: Puwei Wang

Inter-Organizational Processes, Customized Blockchain System

> Designed and implemented a high-performance blockchain system for business processes, improving throughput by 2.7x
> Customized process engine to run via endorsement-consensus-commit procedure on blockchain
> Realized reliable interactions between blockchain processes and external services

Published paper awarded **Best Paper** at IEEE ICWS 2023

Electoral College versus Popular Vote	**Research Assistant**	2022.09 – 2023.07

Advisor: Zijia Wang

Game theory, Contest theory

> Developed a stylized game theory model comparing electoral college and popular vote
> Derived theoretical results on probability of winning, campaign expenditures, and inversion rates
> Proved electoral college leads to higher probability of winning and lower inversion rate
> Showed a cutoff cost ratio exists where electoral college leads to higher spending below the cutoff and lower spending above

🏅 Award

IEEE ICWS 2023	**Best Paper Award**	2023.07
National Undergraduate Training Program for Innovation and Entrepreneurship		2023.04
"Challenge Cup" National Contest	**Third prize**	2022.12

🏛 Publications

Puwei Wang, Zhouxing Sun, **Rui Li**, Jinchuan Chen, Ping Gong, Xiaoyong Du, *An Efficient Customized Blockchain System for Inter-Organizational Processes,* **IEEE ICWS'23**

🔧 Skill

Programming Languages	Python, C/C++, R, Stata
Frameworks	PyTorch, Keras
Tools	Git, Latex, Markdown, Typst