Rui Li

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EDUCATION

Renmin University of China, Beijing, China

09/2020 - 06/2024 (expected)

B.S. in Mathematics, GPA: 3.84/4, Rank: 1/19 B.A. in Economics, GPA: 3.69/4, Rank: 6/19

RESEARCH EXPERIENCE IN COMPUTER SCIENCE

An Efficient Customized Blockchain System for Inter-Organizational Processes

Bejing, China

Research Assistant, Advisor: Prof. Puwei Wang

09/2022 - 04/2023

Area: Inter-Organizational Services, Customized Blockchain System

- Customize a process engine for executing the inter-organizational business processes via a blockchain-style
- Propose a blockchain-based approach for service registration, binding and invocation
- Design a lease-based concurrency control protocol to logically isolate transactions from each other when invoking the services simultaneously

Maximizing Network Reliability with Limited Monitoring Resources

Bejing, China

Research Assistant, Advisor: Prof. Puwei Wang

02/2023 - 06/2023

Area: Operations research, Service-oriented Computing

- Propose cross-axis time to estimate the overall system reliability at each monitoring point
- Propose an optimization model to maximize the overall system reliability .

RESEARCH EXPERIENCE IN ECONOMICS

Electoral College versus Popular Vote

Bejing, China

Research Assistant, Advisor: Prof. Zijia Wang

09/2022 - 01/2023

Area: Game theory, Contest theory

- Propose a stylized model of an election game with two candidates and multiple districts
- Compare EC and PV from the perspectives of winning chance, campaign expenditure, and inversion rate

RELATED COURSES IN MATHEMATICS

- Partial differential equation (93, Final:97)
- Complex Analysis (90)
- Probability theory (97, Final:98)
- Analysis I,II,III (94,91,91)

- Functional analysis (94, Mid:97)
- Real Analysis (91)
- Abstract Algebra (83)
- Advanced AlgebraI,II(82,90)

(Grading Policy is written in footnote)¹

RELATED COURSES IN ECONOMICS

• Industrial organization(99, Final:100)

• Information economics (90)

RELATED COURSES IN COMPUTER SCIENCE

• Artificial intelligence and Python²(93,Final:97)

• Machine Learning(88)

• Programming I,II (90,90)

¹Credit and grade point calculation method (grade/score/grade point): Credit and grade point calculation method (grade/score/grade point):

A(90-100):4.0 A-(86-89):3.7 B+(83-85):3.3 B(80-82):3.0 B-(76-79):2.7 C+(73-75):2.3 C(70-72):2.0 C-(66-69):1.7 D+(63-65):1.3 D(60-62):1.0

²Deep Learning

SELECTED OPEN-SOURCE PROJECTS

Notes on Geometric Analysis on Graphs

07/2023 - 08/2023

- A latex notes in the field of geometric analysis on the graph
- Cover following topics: spectral graph theory, partial differential equations on graphs and Ricci curvature on graphs

Asset Pricing via Machine Learning

03/2023 - 06/2023

Selected as an outstanding exemplary project by the Big Data and Artificial Intelligence Platform at Renmin University of China

- Initialized project with comprehensive functionality and high-quality software engineering standard
- Implemented advanced statistical models, including time series analysis and machine learning algorithms, to forecast stock returns and identify potential market trends
- Elucidated the causal mechanisms embedded within the models utilized in this project

SELECTED AWARDS

IEEE ICWS Best Paper Award	2023
National Undergraduate Training Program for Innovation and Entrepreneurship	2022
Third prize, "Challenge Cup" National Contest	2022

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 Best Paper Award**

SKILLS

Programming Languages: Python, C/C++, R, Stata

Frameworks: PyTorch, Keras **Tools:** Git, LaTeX, Typst

LANGUAGE

CET6: 551