

Rongen “Sophia” Zhang

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RESEARCH INTEREST

Organizational and behavioral implications of disruptive technologies, including but not limited to **blockchain technologies** and **responsible artificial intelligence** (AI); for example, issues related to blockchain governance and cryptocurrency incentives, blockchain application in healthcare, supply chain, and online communities, explainable AI, and data provenance in responsible AI

EDUCATION

Georgia State University, J. Mack Robinson College of Business

Atlanta, GA

Ph.D. Computer Information Systems

August 2022

Research Focus: Blockchain Governance; Responsible AI

Dissertation Topic: Investigating Decentralization, Incentives, and Configurations of Blockchain Governance

Dissertation Committee: Balasubramaniam Ramesh (chair), Arun Rai, Ling Xue, Likoebe Mohau Maruping, Jason Bennett Thatcher

GPA: 4.02/4.30

Harbin Institute of Technology

Harbin, China

B.S. Management Information Systems

July 2018

Bachelor Thesis: The CNN Transfer Learning Model with Satellite Images for Economic Prediction

Wroclaw University of Economics and Business

Wroclaw, Poland

Data Science; Summer School Program

September 2017

Technical University of Hamburg

Hamburg, Germany

International Management Science; Exchange Program

August 2017

Core Course: Machine Learning and Data Mining

AWARDS

- 2021 – Georgia State University Graduate Student Teaching Excellence Award
- 2021 – George E. Manners Scholarship
- 2021 – Georgia State University Provost's Dissertation Fellowship
- 2021 – AIS Doctoral Student Service Award
- 2018-2022 – Second Century Initiative & Doctoral Fellowships, Georgia State University
- 04/2017 – Government Full Scholarship for Overseas Semester in Germany (The only student to qualify from the Harbin Institute of Technology)
- 11/2014 – National People Scholarship for three consecutive years
- 06/2014 – Ranked among the top 0.5% in the National College Entrance Examination

JOURNAL PUBLICATIONS

Zhang, R., George, A., Kim, J., Johnson, V., and Ramesh, B. *"Benefits of Blockchain Initiatives for Value-Based Care: Proposed Framework"* Journal of Medical Internet Research 2019;21(9):e13595 (Impact factor: 4.945)

Werder, K., Ramesh, B., and **Zhang, R.** *"Establish Data Provenance for Responsible Artificial Intelligence Systems"* ACM Transactions of Management of Information Systems. 2021 (Forthcoming)

PEER-REVIEWED CONFERENCE PROCEEDINGS

- **Zhang, R.** *"Blockchain Governance Design Elements and Generative Governance Engagement"* (2021) 5th International QCA Paper Development Workshop
- Park, J., **Zhang, R.**, and Xue, L. (2021) *"Myopic Evaluative Governance Engagement in Cryptocurrency-Incentivized Online Community"*, Conference on Information Systems Technology; Newport Beach, CA
- **Zhang, R.**, Park, J., Ciriello, R., and Thatcher, J. B. (2021) *"Digital Class Struggle? Incentivizing User Engagement in a Blockchain-based Online Community"* in the proceedings of the 3rd Multidisciplinary International Symposium on Disinformation in Open Online Media; The Oxford Internet Institute
- Ellis, C., Carbajal, D., **Zhang, R.**, Miller, R., Calhoun, V., and Wang, D. (2021) *"A Gradient-based Approach for Explaining Multimodal Deep Learning Classifiers"*, IEEE International Conference on BioInformatics and BioEngineering
- Ellis, C., Carbajal, D., **Zhang, R.**, Miller, R., Calhoun, V., and Wang, D. (2021) *"A Novel Local Ablation Approach for Explaining Multimodal Classifiers"*, IEEE International Conference on BioInformatics and BioEngineering
- Ellis, C., **Zhang, R.**, Carbajal, D., Miller, R., Calhoun, V., and Wang, D. (2021) *"Explainable Sleep Stage Classification with Multimodal Electrophysiology Time-series"* in the proceedings of the 43rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society
- **Zhang, R.** (2020) *"The Impact of Blockchain Governance Mechanisms on User Governance Engagement in Decentralized Online Communities"* Blockchain eWorkshop of the European Conference of Information Systems
- **Zhang, R.**, Park, J., and Ciriello, R. (2019) *"The Differential Effects of Cryptocurrency Incentives in Blockchain Social Networks"* in the proceedings of Pre-International Conference on Information Systems SIGBPS 2019 Workshop on Blockchain and Smart Contract; Munich, Germany
- **Zhang, R.**, and Park, J. (2019) *"Crypto-Carrots and Crypto-Sticks: How Blockchain-Based Incentives Impact User Behavior in Social Networks"* Blockchain Research Workshop; Chengdu, China

RESEARCH IN PROGRESS

Zhang, R. *"Blockchain Governance Design Elements and Generative Governance Engagement"*

Johnson, V., **Zhang, R.**, Ramesh, B., Kim, J., and George, A. *"Blockchain enabled Double-Loop Learning and Value Co-creation in Supply Chain Management"*

Ellis, C., **Zhang, R.**, Carbajal, D., Miller, R., Calhoun, V., and Wang, D. *"Novel Methods for Explaining Deep Learning Classifiers Trained on Multimodal Time-series"*

Zhang, R., Mueller-Bloch, C., Ramesh, B., and Xue, L. *"Unpacking Decentralization and the Effects on Blockchain Growth"*

Zhang, R., Park, J., Xue, L., and Ramesh, B. *"Digital Class Struggle? Incentivizing User Engagement in a Blockchain-based Online Community"*

Park, J., **Zhang, R.**, and Xue, L. *"Myopic Evaluative Governance Engagement in Cryptocurrency-Incentivized Online Community"*

Ramesh, B., Werder, K., Negi, K. and **Zhang, R.** *"The Effect of Explanation and Data Provenance on Medical Decision-Making Effectiveness when using AI systems"*

Ramesh, B., and **Zhang, R.** *"Decentralized to be Dynamic? The Role of Blockchain Technology in Achieving Dynamic Capabilities"*

TEACHING

Instructor for CIS 4730 Unstructured Data Management

August 2021 – December 2021

- Teaching eval: 4.64/5
- In-person class

Instructor for CIS 4730 Unstructured Data Management

June 2021 – August 2021

- Teaching eval: 4.54/5
- [Syllabus](#)
- Virtual class

Guest Instructor CIS 8960 Topics in Information Systems

October 2018 – October 2019

- Instructed an SAP Predictive Analytics and Tableau Workshop session for 4 semesters

Part-time tutor

July 2014 – December 2016

- Tutored 9 middle school students in Mathematics, Physics, and Chemistry

PROFESSIONAL EXPERIENCE

TEACHING ASSISTANT

Harbin, China

April 2018 – May 2018

- Teaching Assistant of Computer Science Department (Advisor: Dr. Hongzhi Wang)
- Developed R programs for course Big Data Analysis with R

SYSTEM ANALYST

Harbin, China

December 2017 – January 2018; December 2015 – April 2016

- System Analyst of "River Chief" Management Information System
- Participated in the system analysis and design of the Ashen River Pollution Control Management System

RESEARCH ASSISTANT

Harbin, China

December 2017 – January 2018

- Research Assistant at the Electronic Health Research Institute (Advisor: Dr. Xitong Guo)
- Conducted data collection of patient reviews from online health community (haodf.com) with Java and SQL (data crawling and preprocessing)
- Analyzed research data on the interaction mechanism of patient-physician in online medical community

RESEARCH ASSISTANT

Harbin, China

November 2015 – April 2016

- Research Assistant of National Natural Foundation Project: The Optimization of Peer Assessment Mechanism of MOOC (Advisor: Dr. Yanqing Wang)
- Assisted research on flip-classroom for programming education; responsibilities involved designing interview questions, conducting interviews and collecting data

SERVICE

Board Member

- Secretary of AIS Doctoral Student College 2021 Executive Board
- Vice President of Georgia State University (GSU) Robinson PhD Fellows 2020 Executive Board

Coordinator

- MISQ Insider
- Dan Robey's Workshop

Invited Speaker

- GSU Honors College Research Method Workshop
- The 18th Beijing International Consumer Electronics Exposition; the 3rd World Digital Economy Conference in Beijing, China
Talk Topic: Blockchain Technology Development in China and Western Countries
- Facebook Libra Panel Discussion

Invited Reviewer

- European Journal of Information Systems
- Journal of Medical Internet Research
- International Conference on Information Systems
Conference Track: Healthcare IT
- International Conference on Information Systems
Conference Tracks: Blockchain, DLT, and Fintech; Sharing Economy, Platforms, and Crowds; User Behavior, Engagement, and Consequences

Volunteer

- Americas Conference on Information Systems in 2021
- International Conference on Information Systems in 2018 and 2019
- 2018 Board Meeting of Confucius Institute at Georgia State University (Interpreter)

SPECIAL SKILLS

- Languages: · Chinese, mother tongue
- English, TOEFL: **101** GRE: **327** (Verbal: **157**, Quantitative: **170**, Analytical Writing: **3.5**)
- German, German Goethe - Certificate **A1** (89/100)
- Programming: · Proficient in R, Python, SQL, HTML
- Certificates: [Neural Networks and Deep Learning](#), [Structuring Machine Learning Projects](#), [Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization](#), [Blockchain Technology and Hyperledger Applications](#)
- Tools: · Stata, SPSS, MongoDB, Matlab

PROFESSIONAL MEMBERSHIP

- Association of Information Systems
- Healthcare Information and Management Systems Society
- Blockchain Chamber of Commerce

REFERENCES

Balasubramaniam Ramesh

Distinguished University Professor
Chair and Board of Advisors
Professor of Information Systems
J. Mack Robinson College of Business
Georgia State University
Phone: 404-413-7372
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Arun Rai

Regents' Professor of the University System of Georgia
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Director, CDIN Doctoral Program
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