

# Rongen “Sophia” Zhang

sophia-zhang.com Mobile: 404-449-3355 Sophia\_Zhang@baylor.edu

---

## 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

## EMPLOYMENT

---

**Baylor University, Hankamer School of Business**  
Assistant Professor of Business Analytics

Waco, TX  
Nov 2022 - Present

## 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

---

- 2023 – Hankamer UGRA Research Funding
- 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

---

Ellis, C., Sendi, M., **Zhang, R.**, Carbajal, D., Wang, D., Miller, R., Calhoun, V. "Novel methods for elucidating modality importance in multimodal electrophysiology classifier" *Frontiers in Neuroinformatics* 2023 (<https://doi.org/10.3389/fninf.2023.1123376>)

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

**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)

## 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 3<sup>rd</sup> 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 43<sup>rd</sup> 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 PIPELINE

---

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

- Second Round revision: ISJ

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

- Final Preparation for submission to: JMIS

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

- Data collection stage
- Target: MISQ

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

- Data Analysis
- Target: JAIS

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

- Working Paper
- Target: POMS

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"

- Experiment Design
- Target: MISQ (Special Issue)

**Zhang, R.**, Gallindo, N., Storey, V. "NFTs as Boundary Objects"

- Work-in-progress

## **PRESENTATIONS**

---

Big XII+ MIS Symposium (Dallas, TX) March 2023

**Topic:** *Effects of Decentralization on Blockchain-based Digital Platform Market Capitalization*

PACIS ISR Author Development Workshop July 2022

**Topic:** *Digital Class Struggle? Incentivizing User Engagement in a Blockchain-based Online Community*

Invited Talk at Rutgers University April 2022

**Topic:** *Digital Class Struggle? Incentivizing User Engagement in a Blockchain-based Online Community*

## **TEACHING**

---

Instructor for MIS 5342 Business Intelligence Fall 2023

- In Progress

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 18<sup>th</sup> Beijing International Consumer Electronics Exposition; the 3<sup>rd</sup> World Digital Economy Conference in Beijing, China  
Talk Topic: Blockchain Technology Development in China and Western Countries
- Facebook Libra Panel Discussion

#### Invited Reviewer

- 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  
Email: [bramesh@gsu.edu](mailto:bramesh@gsu.edu)

**Arun Rai**

Regents' Professor of the University System of Georgia  
Howard S. Starks Distinguished Chair  
Director & Co-founder, Center for Digital Innovation (CDIN)  
Director, CDIN Doctoral Program  
J. Mack Robinson College of Business  
Georgia State University  
Phone: 404-413-7857  
Email: [arunrai@gsu.edu](mailto:arunrai@gsu.edu)

**Ling Xue**

Associate Professor of Business  
J. Mack Robinson College of Business  
Georgia State University  
Phone: 404-413-7367  
Email: [lxue5@gsu.edu](mailto:lxue5@gsu.edu)

**Likoebe Maruping**

Professor  
Computer Information Systems Department, CDIN  
J. Mack Robinson College of Business  
Georgia State University  
Phone: 479-445-9709  
Email: [lmaruping@gsu.edu](mailto:lmaruping@gsu.edu)