# CHANYUAN (ABIGAIL) ZHANG

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# ACADEMIC EMPLOYMENT

2023 - preser	nt The University of Texas at San Antonio	Assistant Professor of Accounting
2022 - 2023	Rutgers, the State University of New Jersey	Visiting Assistant Professor
EDUCATION		
2022	Rutgers, the State University of New Jersey,	Ph.D. in Accounting and Information
	United States	Systems
2017	Southwestern University of Finance and	Master of Finance
	Economics, China	
2016	Southwestern University of Finance and	B.S. in Finance and Accounting
	Economics, China	D.S. III Finance and Accounting

#### RESEARCH INTERESTS

Artificial Intelligence, Machine Learning, Auditing, Financial Reporting Quality, Disclosures

#### PEER-REVIEWED PUBLICATIONS

**Zhang, C.**, Cho, S., and Vasarhelyi, M.A. (2022). Explainable artificial intelligence (XAI) in auditing. *International Journal of Accounting Information Systems*, 46, 100572.

**Zhang, C.**, Issa, H., Rozario, A., and Soegaard, J. (2022). Robotic process automation implementation case studies in accounting: a beginning to end perspective. *Accounting Horizons*.

**Zhang, C.** and Vasarhelyi, M.A. (2022). How to teach a 14-week robotic process automation course for accounting students. *Issues of Accounting Education*, 37(3), 21-39.

**Zhang, C.**, Thomas, C., and Vasarhelyi, M.A. (2021). Attended automation in audit: A framework and a pilot implementation. *Journal of Information Systems*, 36(2), 101-124.

**Zhang, C.** (2019). Intelligent process automation in audit. *Journal of Emerging Technologies in Accounting*, 16(2) 69-88.

# **WORKING PAPERS**

Going Concern Opinions (GCOs) Are Noisy and Biased – How Can Machine Learning Improve Going Concern Assessments? With Yu Gu (Rutgers) and Miklos Vasarhelyi (Rutgers). Accepted for presentation at the **2023 PCAOB Conference** on Auditing and Capital Markets. Under review.

Towards A Real-Time Financial Statement Fraud Detection Using Machine Learning. With Lanxin Jiang (Rutgers) and Miklos Vasarhelyi (Rutgers). Accepted for presentation at the **2023 PCAOB Conference** on Auditing and Capital Markets. Under review.

Artificial Intelligence (AI) and financial reporting quality. With Divya Anantharaman (Rutgers) and Andrea Rozario (University of Illinois Urbana-Champaign). Accepted for presentation at the **2022 PCAOB Conference** on Auditing and Capital Markets. Under Review.

Predicting Material Misstatements in Audited Financial Statements Using Machine Learning. With Soohyun Cho (Rutgers), Lanxin Jiang (Rutgers), and Miklos Vasarhelyi (Rutgers). Accepted for presentation at the **2021 PCAOB Conference** on Auditing and Capital Markets. Preparing for submission.

Artificial Intelligence (AI) and the accuracy of management earnings forecasts. With Nerissa Brown (University of Illinois Urbana-Champaign), Henock Louis (Penn State University), and Andrea Rozario (University of Illinois Urbana-Champaign). Preparing for submission.

Using Explainable AI to Detect Financial Statement Fraud. With Nerissa Brown (University of Illinois Urbana-Champaign) and Andrea Rozario (University of Illinois Urbana-Champaign). Preparing for submission.

Use Machine Learning to Improve Abnormal Accrual Estimates. With Lanxin Jiang (Rutgers), Yu Gu (Rutgers), and Lei Zhao (Saint Louis University). Preparing for submission.

Examine the Reliability of Explainable AI Applied in Financial Statement Audits. With Kyungha Lee (Rutgers), Soohyun Cho (Rutgers), and Marco Schreyer (Universität St.Gallen). Preparing for submission.

# INVITED PUBLICATAIONS

Cheong, A., Duan, K., Huang, Q., Vasarhelyi, M. A., & **Zhang, C.** (2022). The Rise of Accounting: Making Accounting Information Relevant Again with Exogenous Data. *Journal of Emerging Technologies in Accounting*, 19(1), 1-20.

Bora, I., Dai, J., Duan, K., Vasarhelyi, M. A., & **Zhang, C**. (2021). The transformation of government accountability and reporting. *Journal of Emerging Technologies in Accounting*, 18(2), 1-21.

Cho, S., Sun, T., Vasarhelyi, M. A., & **Zhang, C.** (2020). Learning from machine learning in accounting and assurance. *Journal of Emerging Technologies in Accounting*. 17(1) 1–10.

Cho, S., Vasarhelyi, M. A., & **Zhang, C.** (2019). The forthcoming data ecosystem for business measurement and assurance. *Journal of Emerging Technologies in Accounting*: 16(2) 1-21.

#### PROFESSIONAL PUBLICATIONS

Vasarhelyi, M.A., Cho, S., Cheong, A., & **Zhang, C.** (2020). Smart Audit: the digital transformation of audit. *European Court of Auditors Journal*. <a href="https://www.eca.europa.eu/en/Pages/NewsItem.aspx?nid=13397">https://www.eca.europa.eu/en/Pages/NewsItem.aspx?nid=13397</a>

Cohen, M., Rozario, A., & **Zhang, C.** (2019). Exploring the use of robotic process automation (RPA) in substantive audit procedures: A case study. *The CPA Journal*. <a href="https://www.cpajournal.com/2019/08/14/exploring-the-use-of-robotic-process-automation-rpa-in-substantive-audit-procedures/">https://www.cpajournal.com/2019/08/14/exploring-the-use-of-robotic-process-automation-rpa-in-substantive-audit-procedures/</a>

**Zhang, C.**, Rozario, A., & Vasarhelyi, M. (2019). Examining automation in audit. *International Federation of Accountants (IFAC) Global Knowledge Gateway*. <a href="https://www.ifac.org/global-knowledge-gateway/audit-assurance/discussion/examining-automation-audit">https://www.ifac.org/global-knowledge-gateway/audit-assurance/discussion/examining-automation-audit</a>

**Zhang, C.**, Dai, J, & Vasarhelyi, M.A. (2018). The impact of disruptive technologies on accounting and auditing education: How should the profession adapt? *The CPA Journal*.

https://www.cpajournal.com/2018/09/13/the-impact-of-disruptive-technologies-on-accounting-and-auditing-education/

**Zhang, C.** (2018). Beyond robotics: How AI can help improve the audit process. *AICPA Blogs*. https://blog.aicpa.org/2018/08/beyond-robotics-how-ai-can-help-improve-the-audit-process.html

#### **TEACHING**

# **Accounting Information Systems**

- Undergraduate, University of Texas at San Antonio

Fall 2023 - present

# **Audit Analytics**

- Undergraduate, Rutgers Business School

Spring 2023

# **Accounting Information Systems**

Undergraduate, Rutgers Business School

Fall 2022

### **Auditing**

 Undergraduate, Southwestern University of Finance and Economics, China (remote teaching) Fall 2021

# Robotic Process Automation in Accounting and Assurance

- Master of Accountancy, Rutgers Business School

Fall 2020

# Information Technology in Accounting and Assurance

- Professional Accounting MBA, Rutgers Business School

Summer 2019

# Introduction to Managerial Accounting

- Undergraduate, Rutgers Business School

Spring 2019 Fall 2018

Spring 2018

### **INVITED SPEECHES/WORKSHOPS**

Artificial Intelligence in Accounting

• Keynote speaker at the 2024 AAA Spark meeting (scheduled)

# Explainable AI in auditing

Workshop speaker at the 2023 UWCISA Symposium

# Machine Learning research opportunities

• Workshop speaker at the 2023 AIS midyear new scholar consortium

#### Robotic Process Automation research opportunities

• Keynote speaker at the 2020 JIS Workshop on Robotic Process Automation (RPA) Research

### **AWARDS**

Accounting Information Systems Section 2023 midyear meeting outstanding dissertation award 2023.01

Best faculty presentation at 2021 AAA Strategic and Emerging Technologies (SET) workshop, 2021.08 virtual

- Coauthored paper "Robotic process automation implementation case studies in accounting: a beginning to end perspective" presented by faculty coauthor.

Winner of the "2021 Dean's Competition for Summer Ph.D. Research Assistants"

2021.04

Best PhD Student Presentation at 2019 AAA Strategic and Emerging Technologies (SET) workshop, San Francisco

2019.08

For the paper "Intelligent process automation in audit"

Best Paper Award at 2019 AIS Educators Conference, Denver

2019.06

- For the paper "Intelligent process automation in audit"

#### **PODCAST**

Matzke, S. (Host). (2021, April) PRA: Robotic Process Automation, American Accounting Association Podcast Series. https://aaahq.org/Outreach/Podcasts

- Featured in one of the interviews of AAA journal authors and industry practitioners sharing thoughts on leadership in accounting.

### **MEDIA MENTIONS**

Soter (2023). How CFOs Can Jump into Gen AI for Finance and Accounting

# **CONFERENCE PRESENTATIONS**

"Going Concern Opinions (GCOs) Are Noisy and Biased – How Can Machine Learning Improve Going Concern Assessments?"

2023 PCAOB Conference on Auditing and Capital Markets

"Towards A Real-Time Financial Statement Fraud Detection Using Machine Learning".

• 2023 PCAOB Conference on Auditing and Capital Markets

"The effects of firms' use of artificial intelligence on audit efficiency and quality"

- 2022 International Symposium on Audit Research (ISAR) conference
- 2022 PCAOB conference

"Identifying informative audit quality indicators (IAOI) using machine learning"

- 2021 Public Company Accounting Oversight Board (PCAOB) Conference on Auditing and Capital Markets, Virtual
- 2020 American Accounting Association (AAA) Midyear Meeting, Orlando, United States
- Accounting Horizons Conference on "Data Analytics in Accounting", New York, United States

- 2020 Journal of Information Systems Workshop on Robotic Process Automation Research (academic panel)
- 2020 American Accounting Association (AAA) Annual Meeting, Virtual

<sup>&</sup>quot;Attended automation in audit: A framework and a pilot implementation"

- 2019 47th World Continuous Auditing and Reporting Symposium (47 WCARS), Newark, United States
- 2019 11th Biennial Symposium on Information Integrity and Information Systems Assurance, Toronto, Canada

"Explainable artificial intelligence (XAI) in auditing"

• 2021 12th Biennial Symposium on Information Integrity and Information Systems Assurance, Organized by University of Waterloo, Virtual

"Intelligent process automation in audit"

- 2019 American Accounting Association (AAA) Annual Meeting, San Francisco, United States
- 2019 Accounting Information Systems (AIS) Educator Conference, Denver, United States
- 46th World Continuous Auditing and Reporting Symposium (46 WCARS), Salvador, Brazil
- 45th World Continuous Auditing and Reporting Symposium (45 WCARS), Florianopolis, Brazil
- 44th World Continuous Auditing and Reporting Symposium (44 WCARS), Seville, Spain
- 2019 American Accounting Association (AAA) Mid-Year Meeting, San Antonio, United States
- 43rd World Continuous Auditing & Reporting Symposium (43 WCARS), Newark, United States 2018 American Accounting Association (AAA) Annual Meeting, Washington DC, United States

### **SERVICE TO PROFESSIONALS**

Public Company Accounting Oversight Board (PCAOB)

Instructor for audit automation in the 2020 Annual Inspections Training (2020.02)

American Institute of Certified Public Accountants (AICPA)

- Author and instructor for the Robotic Process Automation (RPA) course modules (2018.09-2018.12)
- Director of the Rutgers-AICPA Dynamic Audit Solution project

#### Berdon LLP

Academic consultant for Robotic Process Automation applications (2019.09 - 2020.09)

Baker Tilly Virchow Krause LLP

• Academic consultant for Robotic Process Automation applications (2018.03 - 2018.09)

#### CohnReznick LLP

Academic consultant for Robotic Process Automation applications (2017.11 - 2018.08)

### REFEREEING

British Accounting Review

Ad hoc anonymous reviewer (2023.01 – Present)

### Accounting Horizons

• Ad hoc anonymous reviewer (2019.08 – Present)

International Journal of Accounting and Information Systems

• Ad hoc anonymous reviewer (2020.02 – Present)

Behavioral Research in Accounting

• Ad hoc anonymous reviewer (2022.01 – Present)

Journal of Emerging Technologies in Accounting

- Editorial assistant (2017.09-2021.10)
- Anonymous reviewer (2017.09-Present)