# **TIANQI KOU**

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College of IST

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#### RESEARCH FOCUS

I study how the social impact of Machine Learning research and Machine Learning technology should be communicated. Drawing on philosophical and qualitative methods, I (1) develop normative arguments for enforcing communication accountability in research and technology, (2) diagnose how existing communication practices enable harms in concrete contexts—such as AI hype in policing—by analyzing stakeholder discourse, and (3) propose methodological and institutional reforms to create conditions for more responsible communication norms in research and technology production.

## RESEARCH KEY WORDS

Philosophy of Technology, Philosophy of Science, Science and Technology Studies, Communication Norm, Accountability, Tech Policy

## **EDUCATION**

2021- M.S., Ph.D., The Pennsylvania State University

Information Science (Advisor: Dana Calacci)

Committee: Daniel Susser, Cindy Lin, Andrea Miller

2017-19 M.S., Dean's Fellowship, Fordham University

Computer Science (Advisor: Yijun Zhao)

2013-17 B.S., with high honors, Harbin Institute of Technology, Monash University

**Economics** 

## **APPOINTMENTS & AFFILIATIONS**

Center for Socially Responsible Artificial Intelligence, Penn State University

2022- Student Affiliate

Critical Technocultures Lab, Georgia Institute of Technology

2023- Visiting Scholar

Apteo

2019-21 Machine Learning Engineer

(Industry Employment)

LOGIC(S)

2024- Liberal Tech Scholar

Fact Checker

#### **AWARDS & FELLOWSHIPS**

2025	Sloan Foundation Postdoctoral Fellow Finalist
2024	Liberatory Tech Scholar Fellowship, LOGIC(S)
2024	${\bf Graduate\ Student\ Award\ for\ Excellence\ in\ Teaching\ Support,\ Penn\ State\ IST}$
2024	FAccT Student Travel Award
2023	Dean's Travel Award, Penn State IST
2022	Microsoft PhD Research Fellowship Nomination, Penn State IST
2019	Graduate Academic Achievement Award, Fordham University
2017-19	Dean's Fellowship, Fordham University
2016-17	Chinese Scholarship Council First Class Scholarship
2013-17	National People's Scholarship

## SELECTED WORKS IN PROGRESS

1. "Implementing Social Claim Accountability in Machine Learning: Challenges and Opportunities"

Tianqi Kou and Dana Calacci

2. "What is the Hype? A Relational Conception Hype in AI-based Tools in Policing Contexts." Tianqi Kou, Dana Calacci, Nasser Eledroos

# **PUBLICATIONS**

Note: In computer and information science, papers published in major conference proceedings are double-anonymously peer reviewed and recognized as equivalent research contributions to journal articles.

# Articles and proceedings

1. Dead Zone of Accountability: Why Social Claims in Machine Learning Research Should Be Articulated and Defended.

Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES), 2025, forthcoming. [Preprint] or [TL;DR]

Tianqi Kou, Dana Calacci, and Cindy Lin

2. From Model Performance to Claim: How a Change of Focus in Machine Learning Replicability Can Help Bridge the Responsibility Gap.

Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (FAccT), 2024, Pages 1002 - 1013. [Article]

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#### **Preprints**

3. A Quantitative Machine Learning Approach to Master Students Admission for Professional Institutions.

[Preprint available upon request]

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# TALKS / PANELS / WORKSHOPS/ SYMPOSIUMS

1. What is the Hype: A Relational Conception of Hype in AI-based Tools in Policing Context.

Workshop Presentation. Hype Studies Conference; Barcelona, Spain. Sept. 2025.

Tianqi Kou, Dana Calacci, Nasser Eledroos, David Gray Widder, Dasha Pruss

2. Claim Replicability and the Responsibility Gap.

Invited Talk, Digital Life Initiative, Cornell Tech, NYC. Oct. 2024.

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3. A Feminist Conception of Replicability for Machine Learning Research

Poster. Institute for Computational and Data Sciences Symposium. Oct. 2024.

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4. The Function of Replication Studies in Machine Learning Research.

Workshop Presentation. Philosophy of Science Meets Machine Learning; Tübingen, Germany. Sept. 2025.

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5. The Underestimation and Overestimation of Reproducibility in Machine Learning Research

Poster. Institute for Computational and Data Sciences Symposium (2023)

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## CONFERENCE PARTICIPATION

2025 Hype Studies Conference, Barcelona, Spain.

Author

Privacy Law Scholars Conference, Los Angeles, CA.

2024 ACM Conference on Fairness, Accountability, and Transparency.

Author

Northeast HCI, Carnegie Mellon University, Pittsburgh, PA.

2023 Association for Library and Information Science Education, Pittsburgh, PA.

2022 Workshop on the Reproducibility Crisis in ML-based Science, Princeton University.

#### **TEACHING**

Penn State University

AY23-24 IST 402: Emerging Issues and Technologies / Teaching Assistant

AY23-24 DS 200: Intro to Data Science / Teaching Assistant

AY22-24 IST 230: Language, Logic, and Discrete Mathematics (three times) / Teaching Assistant

AY21-22 DS 310: Machine Learning / Teaching Assistant

Fordham University

AY17-18 CIS S5800: Machine Learning (two times) / Teaching Assistant

AY18-19 SDGB 7844: Statistical Methods and Computation II / Teaching Assistant

Harbin Institute of Technology, eHealth Research Institute

AY14-15 Intro to Python and R for Digital Health / Instructor Assistant

# **SERVICE**

2025	Student Track Mentor / AAAI/ACM Conference on AI, Ethics, and Society
2025	Reviewer / AAAI/ACM Conference on AI, Ethics, and Society
	Program Committee / ACM Conference on Fairness Accountability and Transparency
	Reviewer / Big Data & Society
2024	Reviewer / ACM Conference on Human Factors in Computing Systems
2024	Queer Graduate Student in STEM, Penn State College of Engineering.