Shuo Qi
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February 10, 2026

Selection Committee
NBER Innovation Research Boot Camp 2026
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138

Dear Members of the Selection Committee,

I am applying to the 2026 NBER Innovation Research Boot Camp as an innovation-diffusion economist whose work quantifies how technologies spread through networks and how policy can shift diffusion paths. My research combines econometric theory for identifying spillovers under incomplete or endogenous network data with network-based randomized experiments on technology adoption, bringing together measurement, design, and policy evaluation in innovation settings.

This agenda is motivated by a recurring challenge in innovation policy: interventions scale only when we understand social multipliers and unequal exposure. My job market paper develops identification and estimation tools for nonlinear adoption decisions with spillovers when networks are partially observed, and my ongoing work extends these tools to large endogenous networks that resemble real innovation ecosystems. I am now applying these ideas directly in field experiments on digital payments and generative AI diffusion in Tanzania, where we estimate both direct effects and network spillovers to inform scalable innovation interventions.

The Boot Camp would provide a unique opportunity to deepen my engagement with the economics of innovation literature and to refine the policy framing of my research. I am especially eager to learn from and interact with scholars working on knowledge spillovers, innovation incentives, and technology policy, and to participate in the NBER Summer Institute Innovation Policy meeting.

My recommender is Philip Roessler (William & Mary, proessler@wm.edu).

Thank you very much for your consideration.

Sincerely,

Shuo Qi

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CONTACT INFORMATION

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ACADEMIC APPOINTMENT

Postdoctoral Fellow in Digital Inclusion and Governance, William & Mary 2025-
Faculty Affiliate, Department of Economics, William & Mary 2025-

RESEARCH AFFILIATION

Research Affiliate, Global Labor Organization (GLO) 2024-

EDUCATION

Ph.D. & M.A.(en route) Economics, Southern Methodist University, Dallas, TX 2025
- Melody Rice Memorial Award for Excellence in Research and Service
- Dissertation: "*Econometric Analysis of Social Interactions and Decision-Making*"
- Committee: Daniel Millimet (Chair), Hao Dong, and Ömer Özak

M.A. Economics, Boston University, Boston, MA 2018
B.A. Economics and B.S. Psychology, South-Central University for Nationalities, China 2013

RESEARCH FIELDS

Econometrics (Theoretical and Applied), Development Economics, Labor Economics

WORKING PAPERS

"Identification and Estimation of Discrete Choice Models with Spillovers Using Partial Network Data"
"Inference for Social Interactions in Large Endogenous Networks" (with Wan Zhang)
"Echoes of Icarus: How Parental Over-Aspiration Shapes Children's Academic Success"
"Stein-Like Double Machine Learning Estimator"(with Daniel Millimet)

WORK IN PROGRESS

"Estimating Treatment Effects with Spillovers in Unobserved Networks"
"The Labor Market Returns to Adolescent Mental Health Care" (with *Travis Whitacre*)
"From Cash to Digital Payments: Evidence from a Two-Sided Market Intervention in Tanzania" (with Philip Roessler and Innovations for Poverty Action team)
"Bridging the AI Divide: An RCT on Voice-Based Generative AI, Social Learning, and Women's Empowerment" (with Philip Roessler and Viamo team)

BOOK CHAPTERS

"Evidence -based Policy Making" (with Daniel Millimet and Xuchao Gao), in preparation for *Handbook of Labor, Human Resources and Population Economics*, ed. Klaus F. Zimmermann, Springer Nature.

SEMINARS AND CONFERENCE PRESENTATIONS

2026 Southern Economic Association, 96th Annual Meeting (Houston, scheduled); Texas Camp Econometrics XXIX (Dallas, scheduled).
2025 2025 World Congress of the Econometric Society (Seoul); Chinese Economists Society (CES) North America Annual Conference, Rising Star Session (Univ. of Michigan); TEXPOP (UT Austin); Texas Camp Econometrics XXVIII (UT Austin); Seminar at CUNY Baruch College; American Economic Association Annual Meeting (San Francisco, Lightning Session).
2024 Southern Economic Association, 94th Annual Meeting (×3, Washington, D.C.); Midwest Econometrics Group, 34th Annual Conference (Univ. of Kentucky); Stata Texas Empirical Microeconomics Conference (Dallas Fed, Poster); North East Universities Development Consortium (Northeastern Univ.); Global GLO-JOPE Conference 2024 Job Market Session (Virtual); Asian Meeting of the Econometric Society (Zhejiang Univ.); American Society of Health Economists Conference (San Diego); North American Summer Meeting of the Econometric Society (Vanderbilt Univ.); TEXPOP (UT Austin); Texas Camp Econometrics XXVII (Montgomery); Seminar at Univ. of Texas at Arlington; American Economic Association Annual Meeting (San Antonio, Poster).
Earlier Southern Economic Association, 93rd & 92nd Annual Meetings (New Orleans, 2023; ×2, Fort Lauderdale, 2022); Midwest Econometrics Group, 33rd Annual Conference (Cleveland Fed, 2023); Midwest Economics Association, 87th Annual Meeting (Cleveland, 2023); American Society of Health Economists Conference, 12th Annual Conference (St. Louis, 2023, Poster); CIREQ Interdisciplinary PhD Student Conference on Big Data and Artificial Intelligence (McGill Univ., 2023); Causal Data Science Meeting 2023 (Virtual, 2023); Stata Texas Empirical Microeconomics Conference (Southlake, 2023, Poster); Texas Camp Econometrics XXVI (Montgomery, 2023); Seminar at Western Illinois Univ., 2023; Economics Graduate Student Conference, 18th Annual Meeting (WashU, 2023).

TEACHING EXPERIENCE

Instructor

Econometrics (Undergraduate), William & Mary — Spring 2026
[Syllabus] [Lecture Notes] [Stata Manual]

Intermediate Microeconomics (Undergraduate), SMU — Fall 2022
[Syllabus] [Lecture Notes]

Guest Lectures

Topics in Social Network Analysis, DIGLab Research Group, William & Mary — Fall 2025
[Reading List] [Lecture Notes]

Introduction to Stata, Econometrics I (Ph.D. Core), SMU — Fall 2020

Teaching Assistant, SMU — 2018 - 2021
Ph.D.: Econometrics I (Fall 2020); Econometrics II (Spring 2021).
Master's: Game Theory (Fall 2018, Fall 2019); Law and Economics (Spring 2020, Spring 2019); Economic Development (Fall 2018); Economic and Business Forecasting (Spring 2021).
Undergraduate: Principles of Macroeconomics (Spring 2018); Intermediate Microeconomics (Spring 2019, Spring 2020); Money and Banking (Fall 2019); Financial Economics (Spring 2018).

HONORS AND AWARDS

Digital Inclusion and Governance Fellowship, Global Research Institute, William & Mary — 2025–2026
Research Support Funding, Global Research Institute, William & Mary — 2025–2026

Dean's Dissertation Fellowship, SMU — 2024-2025
Award of Optimization-Conscious Econometrics Summer School, University of Chicago — 2024
Melody Rice Memorial Award for Excellence in Research and Service, SMU — 2024
Graduate Fellowship in Computational Science and Engineering (×2), SMU — 2022-2024
Graduate Student Award, Southern Economic Association — 2022

Doctoral Teaching Fellowship, SMU 2022
Dean's Award for Best Presentation, Research & Innovation Week Graduate Poster Session, SMU 2022
Cobb Fellowship for Best Third-Year Paper, SMU 2021-2022
Full Tuition Scholarship and Teaching Assistantship, SMU 2018-2021

CONFERENCE DISCUSSIONS

Jiusi Xiao, *"The Effect of Own Gender Prosecutor on Charging and Conviction: Evidence from Random Assignment"*, GLO Job Market Session, Virtual Dec. 2024
Torsten Figueiredo Walter and Niclas Moneke, *"Endogenous Sample Selection"*, North East Universities Development Consortium, Northeastern University, Boston, MA Nov. 2024
Jaime Ramirez-Cuellar, *"Testing for Idiosyncratic Treatment Effect Heterogeneity"*, Midwest Economics Association 87th Annual Meetings, Cleveland, OH Apr. 2023

PROFESSIONAL MEMBERSHIPS

American Economic Association, Econometric Society

SKILLS

Python, R, Stata; English (fluent), Mandarin (native), French (beginner)

REFERENCES

Daniel L. Millimet (Ph.D. Advisor)
Dedman Trustee Professor
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Southern Methodist University
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Philip Roessler (Postdoctoral Supervisor)
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Ph.D. Coursework

Shuo Qi
Ph.D. in Economics, Southern Methodist University

Core Theory

- ECO 6384 Microeconomic Theory I
- ECO 6385 Microeconomic Theory II
- ECO 6394 Macroeconomic Theory I
- ECO 6395 Macroeconomic Theory II

Core Econometrics

- ECO 6372 Econometrics I
- ECO 6374 Econometrics II
- ECO 6375 Econometrics III

Field Courses

- ECO 7377 Microeconometrics
- ECO 7305 Mathematical Economics
- ECO 7334 Development Economics
- ECO 7321 Labor Economics
- ECO 7332 International Macroeconomic Theory and Policy
- ECO 7322 Development of Human Capital
- ECO 7381 Experimental Economics

Research Statement

Shuo Qi

Application to NBER Innovation Research Boot Camp 2026

Innovation policy often hinges on a practical bottleneck: technologies do not diffuse automatically. Adoption is socially mediated, spillovers are economically meaningful, and the networks that govern diffusion are typically incomplete, endogenous, and unequally structured. My research agenda sits at the intersection of innovation diffusion, networks, and policy design. I aim to make innovation spillovers measurable and policy relevant by combining econometric theory with network based field experiments.

A central contribution of my work is developing identification strategies for spillovers when the true diffusion network is only partially observed or jointly determined with outcomes. My job market paper, "Identification and Estimation of Discrete Choice Models with Spillover Effects Using Partial Network Data," builds an estimator that recovers peer effects and latent heterogeneity in nonlinear adoption decisions under missing links, conditions that are the rule rather than the exception in real world diffusion environments. In related work, "Inference for Social Interactions in Large Endogenous Networks" with Wan Zhang, I move beyond the many small networks paradigm to address endogeneity and degree heterogeneity in a single large network, a setting that closely mirrors innovation ecosystems and platform mediated diffusion.

I am now pushing this agenda into direct innovation policy evaluation through field experiments. As a Postdoctoral Fellow at William and Mary, I co lead a randomized controlled trial on the diffusion of digital payments in Tanzania, "From Cash to Digital Payments: Evidence from a Two-Sided Market Intervention in Tanzania," using saturation randomization to estimate both direct adoption effects and the social multipliers that govern scalability. I also design the network measurement strategy that maps transaction, information, and trust links, allowing us to identify heterogeneous spillovers across network layers that policymakers implicitly target when they seed or subsidize adoption.

In a second RCT, "Bridging the AI Divide: An RCT on Voice-Based Generative AI, Social Learning, and Women's Empowerment," we study diffusion of voice based generative AI tools in business and education settings, with a focus on social learning and women's economic empowerment. I lead the design of a referral game embedded in the experiment to uncover otherwise unobserved exposure pathways, generating credible variation that can be connected to structural diffusion models and used to evaluate alternative policy designs for closing adoption gaps.

The NBER Innovation Research Boot Camp is the ideal environment to sharpen my transition from network econometric foundations to a sustained research program in the economics of innovation. I am particularly eager to deepen my engagement with core innovation questions, including knowledge spillovers, policy design for adoption and scaling, and the distributional consequences of frontier technologies, and to connect with the innovation research community through both coursework and the Summer Institute. My long run goal is to build a research agenda that quantifies innovation spillovers, designs scalable diffusion policies, and evaluates how new technologies reshape economic opportunity and inequality.