

Siyuan Liu

Updated November 11, 2025

Email: siyuann.liu@rotman.utoronto.ca

Phone: +1-(437)-363-7843

Personal Website: www.siyuan-liu.com

Address: 105 St. George Street, M5S3E6, Toronto, ON

Citizenship: People's Republic of China

Visa status: H4 + EAD (no sponsorship required)

Research interests	Urban Economics, Empirical IO, Development Economics, Digital Economics - with a particular focus on fostering urban development in the digital age	
Education	University of Toronto	Toronto, Canada
	Ph.D. in Economics	09/2020–06/2026 (expected)
	<i>Advisory Committee:</i> Nathaniel Baum-Snow, Victor Couture, William Strange, Yue Yu	
	University of Chicago	Chicago, USA
	M.A in Social Science - Economics Concentration	08/2018–07/2019
	Peking University	Beijing, China
	B.A in Economics	09/2014 – 07/2018
	University of California, Berkeley	Berkeley, USA
	Visiting student	01/2017 – 09/2017
Employment	Yale University, Tobin Center for Economic Policy	New Haven, USA
	Pre-doctoral research associate	08/2019–08/2020
	<i>Supervisor:</i> José-Antonio Espín-Sánchez	
Working Papers	Space and Cyberspace: The Impact of Food Delivery Platforms on Retail Real Estate (<i>Job Market Paper</i>)	
	<i>Presentations:</i> Rotman EAP PhD Workshop, EAP IO Seminar, UofT Urban PhD Conference	
	National Road Upgrading and Structural Transformation: Evidence from Ugandan Households , with Ian Herzog (University of Guelph) and Yue Yu (University of Toronto) under review at <i>Journal of Development Economics</i> <i>Presentations:</i> NBER SI Development*, PacDev Conference*, Harvard Cities & Development Workshop*, BSE Summer Forum*	
	Ripple Effects of Deregulating Startup Investments , with Zijun Cheng (Shanghai University of Finance and Economics) and Ruichi Xiong (Wuhan University) <i>Presentations:</i> Canadian Economics Association Annual Meeting, YES Chengdu*, Jinan-SMU Conference on Urban and Regional Economic*	
	* indicates presentation by coauthors	
Work in progress	Why Urban Villages Persist Near the City Center? Evidence from Shenzhen	
	Do Human Users Correct AI-Created Stereotypes in Practice? , with Sijie Lin (University of Toronto) and Ruiqi Sun (Hong Kong University)	
Pre-doctoral publication	Hsieh, Chee-Ruey, Siyuan Liu , and Xuezheng Qin. “The hidden costs of mental depression: implications on social trust and life satisfaction.” <i>The Manchester School</i> 87.2 (2019): 259-296.	

Awards / grants	David Feldman Centre for Real Estate and Urban Economics Traineeship	2024, 2025
	Rotman TD-MDAL Research Grant (\$9,650 in total)	2023, 2025
	Social Sciences Scholarship, University of Chicago	2018
	Outstanding Graduate, Peking University	2018
	First Grade Qihang Scholarship, Peking University	2017
	Arawana Scholarship, Peking University	2016
Professional	Research Assistant	
	Lu Han, University of Toronto	2022-2023
	Yue Yu, University of Toronto	2021-2022
	Andrés Rodríguez-Clare, UC Berkeley	2017
	Xuezheng Qin, Peking University	2015-2018
	Teaching Assistant	
	Real Estate Economics, MBA level, UofT	2022-2024
	Introduction to Microeconomics, Undergraduate level, UofT	2023
	Managerial Economics, MBA level, UofT	2020-2022
	Zhiwu Chen's Finance Fundamentals (MOOC), Public-facing, Online	2018
	Intermediate Macroeconomics, Undergraduate level, Peking University	2017
Skills	Programming	
	Languages: Python, Stata, R, MATLAB, SQL, \LaTeX	
	Proficient in LLMs and machine learning in causal inference	
	Proficient in geospatial analysis (e.g., ESRI ArcGIS, QGIS, GeoDa, Python)	
	Languages	
	Chinese (native), English (fluent)	
References	Nathaniel Baum-Snow	William Strange
	Rotman School of Management	Rotman School of Management
	University of Toronto	University of Toronto
	Nate.Baum.Snow@rotman.utoronto.ca	william.strange@rotman.utoronto.ca
	Victor Couture	Yue Yu
	Rotman School of Management	Rotman School of Management
	University of Toronto	University of Toronto
	victor.couture@gmail.com	yueyu.yu@rotman.utoronto.ca

Abstracts

1. **Space and Cyberspace: The Impact of Food Delivery Platforms on Retail Real Estate** (Job Market Paper)

As consumers shift to online food ordering, do retail spaces become more or less valuable? Food delivery platforms (FDPs) may increase the quantity of restaurant meals demanded but also shift meal consumption away from dine-in. These two forces have countervailing impacts on restaurants' demand for retail space. Exploiting the staggered geographic rollout of FDPs across the United States, I estimate the net impact of these forces on the retail real estate market using the Difference-in-Differences estimator proposed by Callaway and Sant'Anna (2021). I demonstrate that FDP entry increases the demand for retail space, leading to a 2.1% increase in the total number of retailers, driven primarily by restaurant growth. This net positive demand shock for space translates into a 1.0% increase in market-wide retail rents and a 0.7% increase in property values. Finally, I document that retail floorspace supply is highly inelastic. Consequently, the economic surplus generated by this digital innovation largely accrues to landlords, consistent with the classic Ricardian Theory of Rent.

2. **National Road Upgrading and Structural Transformation: Evidence from Ugandan Households**, with Ian Herzog (University of Guelph) and Yue Yu (University of Toronto)

Sub-Saharan Africa is urbanizing, but a significant portion of the urban population still works in agriculture. We argue that this is because smaller cities are isolated from national markets and trade. We test this claim using individual panel data and Uganda's doubling of paved roads, which improved remote areas' market access. We find that market access causes workers to quit family farms for specialized paid employment outside of agriculture. Effects concentrate in peripheral areas, households with comparative advantage in off-farm work, and reflect off-farm opportunities rather than a reduced demand for farm output. We also find that market access leads remote households to simplify farming techniques and scale back farming. Findings are consistent with reliable transport enabling trade with major markets, creating opportunities to specialize according to comparative advantage.

3. **Ripple Effects of Deregulating Startup Investment with Entrepreneurial Spillovers**, with Zijun Cheng (Shanghai University of Finance and Economics) and Ruichi Xiong (Wuhan University)

This paper investigates the role of agglomeration economies in entrepreneurship, focusing on whether an exogenous influx of new firms generates spatial spillovers that benefit other firms in the local economy. We exploit China's 2006 Company Law reform as a quasi-experiment, which significantly lowered the minimum registered capital requirement for incorporation. Using a difference-in-differences strategy, we first confirm the reform spurred entry in constrained industries. Our key finding is that the reform targeting small firms generated "ripple effects" on

larger firms. These firms, which were not directly affected by the capital requirement, also experienced significant increases in their entry and survival rates. We show that this ripple effect is driven by agglomeration economies. The policy-induced entry of small firms promoted greater co-location of firms, generating positive spatial spillovers for larger firms in the same area. We investigate the specific channels and find that local R&D collaboration and labor pooling are the main drivers of this positive spillover. These findings identify a virtuous cycle: policy-driven entrepreneurship can endogenously create agglomeration, which, through spillovers, fosters further firm growth.

4. Why Urban Villages Persist Near the City Center? Evidence from Shenzhen Special Economic Zone

Work-in-progress

The persistence of urban villages in city centers, despite high land values, presents a puzzle for urban economics. This paper argues that high existing building density is the key factor deterring their redevelopment. To test this, I first analyze the institutional background of urban renewal in Shenzhen, China, clarifying the roles of developers, landowners, and the government. I then construct a parcel-level dataset to document the spatial and temporal patterns of these villages and their impact on local property values. Building on this empirical evidence, I develop a redevelopment model that endogenizes the choice of post-redevelopment building density. The model shows that for the most centrally located villages, their current density is already so high that redevelopment offers little additional profit. This finding explains the slow pace of redevelopment and the continued existence of urban villages in prime locations.

5. Do Human Users Correct AI-Created Stereotypes in Practice?, with Sijie Lin (University of Toronto) and Ruiqi Sun (Hong Kong University)

Work-in-progress

We use prompt-level data from a leading AI image generator to analyze the alignment between the AI's output and the final image selected by the human user in real-world production settings. Our goal is to quantify the extent to which human selection corrects algorithmic bias in generative AI.