Contact Information

Jinan Lin, 3rd year PhD student in Management Information Systems with research expertise in sharing economy, online platforms and economic and societal impacts of AI. My email address is jinan.lin@uci.edu, and my physical address is 7331 Palo Verde Road, Irvine, CA 92697. Other professional information can refer to my LinkedIn and Google Scholar Page, and reference letters available upon request.

Coursework and Academic Status

I study sharing economy and platform economics with PhD academic training in causal inference, industrial organization, microeconomics and econometrics sequences, along with various PhD seminars in Digital Business, Analytical Marketing Modeling, Economics of Information Systems, Pricing Strategy, Contract and Mechanism Design, Bayesian Statistics, and Machine Learning. My major is MIS, 3rd year, with affiliated with Paul Merage School of Business at University of California, Irvine.

Before joining UCI, I received 2-year PhD training in economics at the Chinese University of Hong Kong, with focus on peer effects, Bayesian econometrics of social network, and high-dimension estimators. My training includes computational methods in Economics, Time series and China Economy. My research dissertation title is *Spatial Weight Matrices Selection in High Order Spatial Autoregressive Model: Heterogeneous Peer Effects on Friendship Networks*.

General Research and Current Projects:

Technology to Alleviate Poverty and Financial Delinquency

My primary research is on sharing economy especially how the platforms contribute to alleviating poverty in developing economies and improving financial well-beings. In 2020, I collaborate with Didi Chuxing Technology Co. and study the impacts of ride-hailing services on improving income for drivers in South America, who are usually not fully employed prior to the entry of the platform. Our research implies that the adoption of Didi Carpool translates to an increase of 10% of annual salary. Considering the high unemployment rate, urbanization rate and population base in South America, we show that the sharing economy and technology can contribute to significant downstream impacts in poverty reduction, with evidence in driver income and passenger spending. Another working paper in 2019 connects the entry of Airbnb with local financial delinquency rate, and concludes that the sharing economy platforms brings 3.99% and 2.68% reduction of mortgage loans and auto loans delinquency in United States. This paper evaluates the income shocks by utilizing excess housing capacity via an online platform and demonstrates the economic impacts of sharing economy platform at the intersection of technology, finance and society. Both manuscripts have discussed economic implications and effects from regulation policies that strict regulations may offset some of these societal impacts.

Building Honest Online Reputation and Review Systems

I work on the online rereview systems – foundation of sharing economy, to improve the quality signaling in the light of economics of information. By leveraging a policy shock in Airbnb, I pair cross-listing properties between Airbnb and TripAdvisor to investigate the rating differences due to review mechanism. My estimation suggests that simultaneous review systems can help to

mitigate the retaliation effects from bilateral systems by 0.13 and improve the honesty of online reputation. I also work on another open issue of online economy in the past 3 years – the review inflation from sharing-economy platform. I build analytics model based on 2-period duopoly vertical differentiation model together with empirical evidence, to evaluate the impacts from review inflation on pricing, sales and profits. These research shows implications for building better online reputation and helps small vendors to gain comparative advantages for quality signaling.

Societal and Economic Impacts

I have working on societal and economic impacts from technology and platform economies, with following research projects and academia. Among others, I have also helped to investigate in productivity and adoption of ML-augmented forecasting methods in leading tech companies in United States. In 2019, I worked as Economist I (Intern) at Amazon Web Services, Inc (AWS) and conducted causal inference research for internal productivity and compensation program. In 2020, I worked as Researcher (Intern, Economist) at Office of the Chief Economist at Microsoft Corporation, on a project of improving forecasting via multivariate and machine learning methods. Both projects generate downstream impacts for corporate decision making and methodology adoption. In addition, I have also studied the combination of Bayesian Lasso method in estimating high-dimension peer effects from friendship social network, in my 2018 Master of Philosophy dissertation.

Dissertation Title and Committee Members

My current dissertation title is Essays on Economics of Digitization, Sharing Economy and Online Review Platforms, and my temporary committee members include Professor Sanjeev Dewan and Professor Tingting Nian, and some other economists at UCI. My general research interests lie in sharing economy, online labor market, impacts of AI, and machine learning on causal inference.

Titles of On-going Projects:

- The Impacts of DiDi Carpool on Income and Spending: Evidence from South America (with Tingting Nian and Bo Tan) (Presented at 2020 INFORMS Annual Meeting)
- Does Simultaneous Review System Affect Rating Diversity? Evidence from Cross-Platform Listings (with Sanjeev Dewan and Jooho Kim)
- The Impacts of Airbnb's Entry on Financial Delinquency (with Tingting Nian and Vijay Gurbaxani) (Presented at 2019 WISE, 2019 INFORMS Annual Meeting, 2019 SCECR)
- Bad Review System Drives out Good? (with Xiaoyi (Sylvia) Gao)