Research Statement

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My primary research interests lie in the area of microeconomic theory, market design, game theory and industrial organization.

My job marker paper "Ignorance is Strength: Improving Performance of Matching Markets by Limiting Information" develops a framework for analyzing information disclosure problem in matching markets. The model is a persuasion problem on the seller side of the market where sellers have limited capacity and dynamic availability. I show that increased availability does not necessarily lead to market improvement. Specifically, full disclosure is Pareto-suboptimal for buyer and seller surpluses. Increased observability of buyer characteristic induces sellers to cream-skim, that is to reject inefficiently often. Therefore, coarse information disclosure restores efficiency. The particular form of necessary coarsening depends on the details of the seller payoff function and private information. I characterize the optimal disclosure mechanism.

I also have a coauthored research project "A Price Theoretic Model of Search Intermediation by Online Platforms" with Greg Lewis and Albert Wang. We analyze the incentives of online search intermediaries in environments where buyers must compete for limited supply (e.g. airlines, hotels). We find conditions on the primitives when an intermediary who maximizes seller revenue will optimally maintain positive search costs in order to steer searchers to the market where they generate the most revenue.

Next, in a working paper (resubmitted to Theoretical Economics) "Active Learning with a Misspecified Prior" coauthored with Drew Fudenberg and Philipp Strack, we study learning and information acquisition by a Bayesian agent whose prior belief is misspecified in the sense that it assigns probability zero to the true state of the world. We setup a learning model in continuous time, and using results from the theory of stochastic diffusion processes, provide a complete characterization of asymptotic actions and beliefs when the agent's subjective state space is a doubleton. We find a novel interaction between misspecification and the agent's discount rate.

I look forward to doing research in market design, especially in online marketplaces and platforms. With the growing abundance and accessibility of data from the digital economy, I am open to doing empirical work on these subjects.