Zhenhuan Lei

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EDUCATION
Columbia University, Operations Research BS (2012)
Duke University, Business Administration - Operations Management, PhD (exp. 2019)

WORK HISTORY
2014—present, Duke University-Fuqua School of Business, Graduate Research and Teaching Assistant in Operations Management.
- My research focus is on using applied game theoretic models to study supply chain structures and contracting decisions for platforms. Outside of research, I mentor Duke undergraduate teams at the yearly ASA Datafest and HackDuke hackathons and serve as the Business School PhD Program Representative on the Duke Graduate and Professional Student Council.

2018, Zillow.com/Zillow Group, Economic Research Data Scientist Intern
- Built in R the research division's first housing inventory forecasting model using data from Zillow, the Census and public records. Methods I implemented in this analysis include Bayesian structural model, ARIMA, randomForest, clustering and BNN.
- Built and shipped R package for Zillow Econ's commonly used functions
- Working on research brief into urban/suburban/rural poverty trends, school enrollment trends and relationships to real estate value over time
- Creating HMM for clickstream data analysis on HackWeek project to understand conversions of Zillow visitor to paid Zillow services customer and teaching relevant topics about probability models to SDE team members

2016, Amazon.com, Research Scientist Intern—Supply Chain and Optimization Tech
- Prototyped in R a forecasting model for identifying how much additional capacity will be needed given current ordering and seasonal and product specific demand behavior 6 and 12 months into the future for capacity planning

2012—2014, IBM (GBS Division), Strategy and Operations Consultant
JPMorgan Chase & Co (CCB-Mortgage Bank), Data Analyst
- Profiled data for Mortgage Bank portfolios
- Researched business and technical requirements to perform root cause analyses and deep dives into various databases to analyze data problems
RBC Capital Markets, Risk Management Strategist
- Assessed, identified, and created dashboards for process maturity across risk, product development and process controls assessments tailored for trading desks
- Interviewed and gained buy-in from US heads of each trading desk for initial risk assessment and future follow-up assessments
- Identified risk management development roadmap for closing gaps between the client and its competitors, especially in high risk areas
State Farm, Data Architect and Program Manager
- Managed off-shore development team and on-site data mapping team while serving as a data architect to map, model and migrate client data from siloed legacy data storage to a single-source data system using a canonical messaging middle-layer that interfaces between applications and the data warehouse to improve consumer experience.

EXPERIENCE WITH
SQL, R, STATA, AMPL/Cplex/Gurobi, Excel/VBA, WRDS Compustat, Python, LaTeX, Tableau, Matlab, Mode, Hive/Oracle/MSSQL/Teradata DB, Qualtrics, Markdown

PUBLICATIONS
- *"Revenue Sharing and Subscription Platforms for Digital Content Distribution,"* with R. Swinney (under review at Management Science)
- *"Supply Chain Design for Substitutable Digital and Physical Information Goods,"* with R. Swinney (preparing for submission to Management Science)