## Qixin Lin

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#### **EDUCATION**

**University of Chicago** 

Chicago, Illinois

M.A., Computational Social Science (GPA: 4.0)

2023.09-2025.06

Awards: CSGS Research Grant (2024), Morningside Scholarship (2023), Phoenix Research Scholarship (2023)

**Zhejiang University** 

Hangzhou, Zhejiang

B.S., Business Administration (GPA: 92.43/100, Ranking: 1/114)

2019.09-2023.06

 Awards: Hengyi Scholarship (Top1%, 2021), National Scholarship (Top2% 2022), Outstanding Graduate of Zhejiang Province (Top5%, 2023), Outstanding Bachelor's Degree Thesis Award (Top3%, 2023)

### ADDITIONAL TRAINING

Santa Fe Institute

Bogotá, Cundinamarca

Complexity Global School, 2024

HarvardX

Remote

CS50's Introduction to Artificial Intelligence with Python, 2024

Deeplearning.AI

Generative AI with Large Language Models, 2024

Remote

## RESEARCH EXPERIENCE

## **Simulating Interactions of Scientists and Predicting Potential Coordination**

Project Leader (Supervised by: James Evans, University of Chicago)

Chicago, Illinois | 2024.04-Present

- Develop the research question by exploring how agent-based models combined with LLMs can simulate interactions between scientists at conferences, focusing on how these simulations can predict coordination and collaboration patterns.
- Simulate interactions between ChatGPT API and LLAMA 3.1 using Concordia's Game Master (GM) framework to create digital doubles of scientists, replicating their behaviors, expertise, and decision-making processes in conference settings.
- Fine-tune LLMs by optimizing training data and model parameters to enhance the realism and depth of responses, ensuring accurate modeling of scientific discussions and interactions.
- Leverage agent-based modeling to simulate complex conference environments, incorporating variables such as networking dynamics, research collaborations, and knowledge dissemination among participants.

## Impact of Generative AI on Gig Economy Discrimination

Independent Graduate Researcher

Chicago, Illinois | 2023.12-Present

- Propose an innovative study to evaluate the role of generative AI in affecting employment discrimination within the gig economy, with a focus on illustration services on Fiverr.
- Automate data collection from Fiverr, extracting gig titles, ratings, comments, and profiles using web scraping tools and Python.
- Integrate supervised machine learning techniques, including the FairFace model, to classify perceived race and gender of workers, enhancing demographic analysis through AI-driven facial recognition.
- Conduct thorough statistical analysis using correlation, regression, and ANOVA to uncover patterns of discrimination influenced by AI technologies.
- Synthesize research findings to provide actionable insights into the development of inclusive AI systems and policies for digital workplaces, stressing the importance of equitable AI deployment.

## Employment Conditions of Low-skilled Workers: A Study Based on Job Markets of Hangzhou and Ningbo

Research Collaborator (Supervised by: Letian Zhang, Harvard University)

Remote | 2022.06-2023.08

- Collect job descriptions such as current vacancies and salary structures from human resource agencies for field research on labor markets in Hangzhou and Ningbo
- Conduct semi-structured interviews with recruitment agents, employers, and employees to obtain insights into their attitudes toward recruitment in the post-pandemic era
- Curate data from 50,000+ online job posters by using Python Android Crawler and decoding WeChat databases
- Use named entity recognition (NER) to extract specific information from informal and unstructured job posters and explore the correlation of specific data through regression analysis

## How Startups Choose Investors: A Study Based on Entrepreneur Characteristics, Investor Characteristics, and Their Interaction Behavior

Project Leader (Supervised by: Rui Shen, Zhejiang University)

Hangzhou, Zhejiang | 2021.04-2023.04

- Develop the research question based on a literature review of 300+ papers and a phenomenon found on a Chinese entrepreneurial reality show that entrepreneurs choose investors based on more than just the amount of financing they are promised
- Collect profile data on 84 investors and 54 entrepreneurs via channels such as VentureBang and Qingke; Compile detailed information on 177 roadshow projects from 2019 to 2021 in the reality show
- Pre-process the data by filling in missing values by imputation, creating characteristic variables and normalizing them using Stata and Python packages including NumPy, Pandas and Matplotlib
- Design and construct a database to store the curated data in a computable form with three rounds of database programming
- Conduct content analysis of 800,000 words of text with NVivo and Python; perform quantitative analysis (n=1584) with STATA
- Conclude that investors' resource diversity and the orientation of entrepreneurs will affect the investment tie formation; produce a working paper with a 15-page draft

# Leveraging Online Institutional Intermediaries: Entrepreneurial Strategies to Mitigate Offline Institutional Voids Through Leveraging Online Platforms

Research Assistant (Supervised by: Willow Wu & Charles Eesley, Stanford University) Remote | 2022.06-2022.09

- Extract data (n=909,498) from the 9417 business plans with STATA and perform feature extraction for subsequent research
- Apply exploratory analysis with STATA and Python: generate scatter plots, area plots, and various fitted curves to help hypotheses formulating and model selection
- Assist in the pre-registration for and the design of regression analysis

## Seeking common ground or reserving differences: Analysis of Similarities in Business Plans within the Industry

Research Assistant (Supervised by: Rui Shen, Zhejiang University)

Hangzhou, Zhejiang | 2022.06-2022.09

- Organize a dataset of 4238 business plans across 7 dimensions in 23 industries
- Conduct an analysis of business plans to explore similarities and differences among companies within the industry
- Employ the Jieba package for Chinese frequency calculation and TF-IDF for text similarity evaluation

# Public Health and Safety Disaster Culture and the Construction of a Resilient Society under the Perspective of Public Health and Safety (Major Project of the National Social Science Foundation of China)

Research Assistant (Supervised by: Xiaokui Wang, South University of Science & Technology) Remote | 2021.07-2021.09

- Develop a semi-structured interview outline to understand the change in the work status of couriers and food delivery drivers before and after the COVID-19 pandemic and their perceptions of the disaster
- Conduct interviews with 6 couriers; Applied qualitative analysis on the transcribed 40,000 words of text
- Integrate this research result into a permanent database of the COVID-19 pandemic in the SUS-Tech Library

### The Impact of Tangible or Intangible Norms of Work Team Management Style on Team Members

Research Assistant (Supervised by: Qiongjing Hu, Zhejiang University) Hangzhou

Hangzhou, Zhejiang | 2021.06-2021.09

- Localize a questionnaire developed by the Michael G. Foster School of Business and distributed them among 107
  employees with cluster sampling to survey the social norms in different organizations and the impact of such norms
  on the staff
- Complete the three-wave survey in a month; Streamlined survey conducting by grouping subjects

# A Study on the Sources of Self-worth and Factors Influencing the Disabled Group in Telework - A Qualitative Analysis Based on Root Theory

Research Assistant (Supervised by: Qiongjing Hu, Zhejiang University) Hangzhou, Zhejiang | 2021.05-2021.06

- Interview 7 disabled persons who had regular telework to examine the sources of self-worth and the factors influencing the disabled group in telework; learned about the ways disabled people work remotely and their attitude and thoughts toward the employment situation of disabled people in China through semi-structured interviews
- Codify interviewees' work patterns, living conditions, etc., Compiled verbatim information of the interviews and helped draft an article discussing these issues
- Raise suggestions on methodology and innovation points for the article

## Creativity in New Age: A Study of the Mechanisms of Community Building on Creativity in Online Communities

Research Assistant (Supervised by: Zhongyuan Zhang, Zhejiang University) Hangzhou, Zhejiang | 2020.09-2022.3

- Communicate with 25+ potential participants with literary and artistic creation work experience on online platforms and gather information on their personal web user profiles, representative works, etc.
- Conduct interviews with the participants for more than 20 hours, refine the research topic to the influence of online communities on creators' creativity criteria based on the interviewees' responses
- Perform text transcription and preliminary text analysis of 300,000 words of text with NVivo12

### **SELECT PAPERS & PRESENTATIONS**

- Lin Q X (2024). Unmasking Bias in AI-Driven Gig Economy: A Study on Fiverr. The 9<sup>th</sup> Annual SSD MA Interdisciplinary Research Conference.
- Lu Q Y, Shen R, Lin Q X. (2022). Managers' Mobility as a Bridge to Alliance Formation: A Study of Venture Capital Syndication. The 82<sup>nd</sup> Annual Meeting of the Academy of Management.
- Lin Q X, Lu Q Y, Shen R. (2022). The Impact of Investors' Resource Diversity on Entrepreneurs' Evaluations: Evidence from Entrepreneurial Pitches in China. The 10<sup>th</sup> Biennial IACMR Conference.
- Shen R, Lu Q Y, **Lin Q X**. (2022). A Blessing in Disguise: The Impact of Managers' Mobility on Firm's Network Formation. Management Review.

### **OTHER EXPERIENCE**

- Graduate Student Teaching Assistant, University of Chicago Department of Computer Science, 2024.09-Present
- Data Analyst Intern, UChicago Inclusive Economy Lab, 2024.06-2024.09
- Student Ambassador, University of Chicago Division of the Social Sciences, 2023.11-2024.09

### **SKILLS**

- Languages: English (Proficient), Spanish (Basic), Mandarin (Native)
- Knowledge of Analytics, Programming, Data Mining (Web scraping, API), Data Analysis (regressions, classifications, clustering), Machine Learning (deep learning, RL, NN), NLP, Database (SQL3), LLM (LLAMA3.1, OpenAI API), GABM (Concordia), Dashboard Development (interactive web applications, real-time data visualization, UI design)
- Technical: MySQL, Power BI, STATA, NVivo, Tableau, R, LaTeX, Python; Libraries: Scientific Computing (NumPy, SciPy, NetworkX, Pillow), Data Manipulation (Pandas), Data Mining (Scrapy, Requests), Machine Learning (PyTorch, Transformers, Scikit-Learn), Visualization (Seaborn, Tensorboard, Matplotlib, Plotly, ggplot2, Leaflet), Web Development (Shiny, htmltools, shinydashboard), Natural Language Processing (SpaCy, nltk, Gensim), High Performance Computing (CUDA, Spark, OpenCL, MPI), Cloud Computing (AWS)