

# Sifan Liu

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Experienced AI researcher with hands-on AI knowledge. Skilled at conveying complex technical and policy concepts to diverse audiences.

## Experience

### Index Ventures

Remote

RESEARCH CONSULTANT

2023.5 - current

- Developed an analytical pipeline, streamlining data cleaning, analyzing, and visualizing over 400,000 founder and employee career profiles.
- Built a Large Language Model-based chatbot that responds to reader inquiries on the research content. The adoption of a semantic search methodology significantly enhanced reader engagement, providing a more interactive and personalized user experience.

### Amazon Web Services

Arlington, VA

INVESTMENT PRODUCT ANALYST

2022.10 - 2023.5

- Formulated key performance metrics for comparing returns across credit channels, tiers, and program offers, providing a data-driven foundation to prioritize machine learning model development effectively, balancing objectives around customer acquisition, retention, and growth.
- Led a cross-function team of data scientists, product managers, and program managers to develop and implement a data strategy to evaluate and prioritize acquisition of alternative data from third-party vendors.
- Designed a robust A/B testing framework, with inputs from field team to empirically test the pilot results of machine learning model. Developed a reporting dashboard that monitors daily performance against key metrics, enabling real-time insights and facilitating prompt decision-making.
- Crafted an analytical pipeline for real-time ROI monitoring and optimization across 20,000 channels, shaping channel strategy redesign.

### Techstars

Remote

DATA SCIENTIST

2021.3 - 2022.9

- Improved feature engineering and selection for a model to identify effective investment signals from transactions data; proposed new investment strategies based on the model for a new \$150 M fund.
- Optimized the existing ETL process by leveraging geocoding APIs and spatial joins to automate geographic classification of raw addresses, saving 80 hours of labor quarterly with reduced error rate.
- Designed an NLP model to extract job functions and job seniority from 5 million work history records of startup employees, and analyzed how business functions scale as startups grow.

### The Brookings Institution

Washington, DC

SENIOR RESEARCH ANALYST, METROPOLITAN POLICY PROGRAM

2016.10 - 2021.3

- Led the research on regional artificial intelligence (AI) strategies in the U.S.; retrieved AI patents data from Google BigQuery using SQL commands; applying cluster analysis to categorize U.S. metro areas based on their AI capacities; interviewing city leaders on local AI industrial strategy.
- Presented research findings at 10+ events and webinars; moderated a regional entrepreneurial policy panel at a Kauffman Foundation event.
- Led the analytical work on multiple research-to-practice consulting projects with city governments and regional economic development organizations in the U.S.; produced data analysis, designed visualization, and conducted 50+ on-site interviews with key stakeholders.

## Education

### Georgetown University

Washington, DC

MASTER OF PUBLIC POLICY (STEM CERTIFIED), GPA 3.86

2014.8 - 2016.5

### Shanghai Jiao Tong University

Shanghai

B.S., ECONOMICS, GPA 3.71

2010.9 - 2014.6

## Publications

2023 Building AI cities: How to spread the benefits of an emerging technology across more of America, Brookings Institution.

2021 The geography of AI: Which cities will drive the artificial intelligence revolution, Brookings Institution.

## Skills

Language: English, Mandarin, French, Spanish

Certificate: AWS Cloud Practitioner Certification, Udacity Machine Learning Engineer Nanodegree

Technical: Python, R, SQL; AI product development tech stack (Langchain, Vector DB, etc.)