

CHARLOTTE (JIALE) ZHOU

(773) 690-0797 | jialezhou66@gmail.com | <https://jialecharloote.github.io>

SKILLS & RELEVANT COURSEWORK

- **Skills:** Causal Inference (DID, RD), Machine Learning, Spatial Analysis, NLP, LLMs, Data Collection (Web Scraping, RESTful APIs), Cloud Computing (AWS, GEE), Web Development, PySpark, GitHub
- **Software:** Python (Pandas, NumPy, SciPy), Stata, R, MATLAB, ArcGIS, GeoDa, Microsoft 365 (Excel, Word, PowerPoint)
- **Coursework:** Competition Policy, Large-Scale Computing, Causal Inference, Machine Learning for Economists, Full-Stack Quantitative Finance, Deep Learning and GAI, Market Design, Advanced Micro/Macroeconomics

EDUCATION

University of Chicago | Chicago, IL

Master of Arts, Computational Social Science; Concentration: Economics; GPA: 3.82/4.0, Jun. 2025

The Chinese University of Hong Kong | Shenzhen, China

Bachelor of Applied Economics; GPA: 3.7/4.0 (Top 10%), Jun. 2023

Copenhagen Business School | Copenhagen, Denmark

Exchange Program; GPA: 10/12, Sep. 2021 – Jan. 2022

PROFESSIONAL EXPERIENCE

Charles River Associates (CRA), Associate, Antitrust & Competition Economics, Chicago

July. 2024 - Present

- Conducted quantitative economic analysis in high-stakes antitrust and competition cases, including mergers, monopolization, and price-fixing litigation
- Managed and cleaned large, complex datasets from multiple sources (e.g., transaction, financial, and public records) using Python, Stata, and R
- Developed reproducible workflows for data processing, statistical modeling, and visualization to support expert reports and trial testimony
- Collaborated with cross-office teams under tight deadlines, translating economic concepts and analytical findings into client-ready deliverables

Research Assistant, Booth Business School, University of Chicago, Chicago

Dec. 2023 - May 2024

- Collected, verified, and cleaned data on gas flaring activities and asset transactions for oil companies operating in Africa, ensuring accuracy of corporate headquarters and stock exchange listings
- Conducted robustness analysis using Stata to validate findings; Drafted sections of online appendix including methodology details and supplementary analyses, contributing to comprehensive documentation of the research

Consultant Intern, Regional Development Strategies, State High-Tech Industrial Innovation Center

Jul. 2023 - Aug. 2023

- Designed survey questionnaires to investigate discipline setting, talent flow, and use of funding in Shenzhen universities; Conducted quantitative and qualitative analyses on collected questionnaires
- Researched government funding approval processes for higher education projects, conducted national and international comparative studies, and drafted reports with recommendations

RECENT PROJECTS

Price-Fixing Cartels and Firm Innovation

Mar. 2025 - Jun. 2025

- Applied Double Machine Learning (DML) with DiD to estimate the causal impact of cartel participation on firm R&D using DOJ, USPTO, and Compustat data
- Used Random Forests and boosting methods to control for high-dimensional firm heterogeneity and selection bias

Financial Sentiment Analysis Bot using Fine-Tuned LLMs (FinBot: [Hugging Face](#) | [GitHub](#))

Jan. 2025 - Mar. 2025

- Fine-tuned DeepSeek-R1-Distill-Qwen-1.5B using PEFT (LoRA) for sentiment classification and reasoning on 5,700+ financial news articles.
- Built labeled dataset (Polygon & Kaggle), evaluated model (F1, BLEU, BERTScore), and deployed QA API & web app via Flask

Leveraging Satellite Data and Cloud-Based Machine Learning for Mining Detection in Ghana

Mar. 2024 - Jul. 2024

- Leveraged AWS cloud computing to handle large-scale datasets from sources like Google Earth and Landsat, utilizing PySpark for data processing, feature engineering, and visualization
- Applied machine learning techniques, including Random Forests and Convolutional Neural Networks, to analyze multimodal data sources such as geospatial features and satellite imagery, improving the prediction of mining activities

Sentiment Analysis of ESG Disclosures and Firms' Financial Performance

Jan. 2024 - Feb. 2024

- Leveraged Python for web scraping to extract data regarding companies' ESG disclosures from SEC filings, facilitating efficient analysis of textual information
- Applied LM dictionary to conduct sentiment analysis on public companies' ESG disclosure through Python, examining relationship between sentiment words in ESG reports and financial performance of public companies