Ke ZENG

PhD Candidate · Economics

2959 Northern Blvd, 41M, Long Island City, NY, USA, 11101

☐ (+1) 646-732-4074 | ✉ youxiang@kezeng.xyz | 🏠 kezeng.xyz | Ⓞ Ortsang | in Ke Zeng | 🐦 @KeZeng7

EDUCATION

Graduate Center, City University of New York | *New York, USA*

PhD Candidate in Economics | *Aug. 2017 - June. 2023 (exp.)*

- **Thesis:** *"Essays on physician behavior and healthcare policy."*
- **Research Fields:** Applied Econometrics, Health Economics, Industry Organization

Master of Science, Major in Intl' Economics @ Lund University, Lund Sweden, Aug. 2015 - Jun. 2016
Bachelor of Economics, Major in Finance, Northeastern University, Shenyang, China, Sep. 2011 - Jul. 2015

Skills

Econometrics/Statistics	Bayesian statistics, Hypothesis testing, Time series analysis (ARIMA, VAR), ML-enforced, Causality (DiD, RD)
Models	Regression analysis (Linear/Poisson/Logit/Multinomial), Ridge-like, Montecarlo, CNNs, RNNs
Programming	Python (TensorFlow, Scikit-Learn, Keras, GRF&EconML), Stata, R , Matlab, LaTeX, Google CoLab
Databases	Pandas, Numpy, SQL&NoSQL; **Data** HCUP, American Community Surveys, Current Population Survey
Languages	Mandarin, Cantonese, English, Hakka, French(A2)

Work Experience

World Bank Group & Data Whale | *New York, USA*

External Consultant | *Jun. 2021 - Current*

- Led a project to develop and maintain the Health Equity and Financial Protection Indicator (HEFPI) by collecting and harmonizing the raw data from surveys, <u>covered more than 30 countries</u>.
- Developed and maintained a data model for Multiple Indicator Cluster Survey project, a World Bank initiative aimed at improving data collection in low- and middle-income countries. Worked on harmonizing data from <u>four countries: Kosovo, Tongo, Tonga, and Serbia</u>.

Immigration Research Initiative | *New York, USA*

Quantitative Analyst | *Nov. 2021 - Current*

- Implemented various models to abstract the living and employment status of immigrants in the US, utilizing data from the American Community Survey and Current Population Survey, with a dataset of <u>15 million observations and 59 variables</u> reflecting the US population universe.
- Generated regional visualizations of results using geographic data in R, which have been applied to multiple organizational reports at the presentation.

COTA | *New York, USA*

Medical Research Intern, Oncology Research | *Jun. 2022 - Aug. 2022*

- Led an investigation of patient outcomes on ICI therapy using survival analysis, propensity score matching and ARIMA time series in R, identifying positive outcomes of applying multiple lines of ICI regimens. Results are applied to company reports and research.
- Proposed analysis methods, including Causality and ML methods, and executed research plans to interpret patient record outcomes. Summarized findings into reports, with one report leading to company-wide changes in inhibitor interpretation protocol and process pipeline.
- Introduced and developed an analysis pipeline of <u>synthetic control arms</u> for predicting patient outcomes using tree-based predictors and causality methods.
- Developed pipelines and dictionaries for searching and separating ICI regimens, which are provided to the whole company.

Fiscal Policy Institute | *New York, USA*

Data Analyst | *Jan. 2019 - Nov. 2021*

- Led projects employment to abstract and visualize of data outcomes for an annual report on immigration status using the Current Population Survey. Conducted data abstraction and time series analysis in R and Stata. Results help to allocate **$2.1 billion** to the Excluded Worker Fund, which was designed to address various FPI reports related to immigration.

City University of New York | *New York, USA*

Lecturer | *Sep. 2018 - Aug. 2021*

- Lectured ECO321 Introduction to Econometrics at Hunter College, RateMyProf - 4/5, topics covering statistics, regression model and time series.
- Lectured ECON2100 Elementary Macroeconomics at Brooklyn College, topics covering multiple macroeconomics issues.

UN Environment

Beijing, China

INTERN

Apr. 2017 - Jul. 2017

- Provided assistance in the coordination and organization of several high-profile events related to green development, including the International Coalition for Green Development on the Belt and Road Conference, BRICS summit, Environment Minister Conference, World Environment Day 2017, and UN Environment Kubuqi Summer Camp.
- Provided support to Erik Solheim, the former Executive Director of UNEP, by assisting with political briefings and preparing his daily schedule. Played a critical role in facilitating the efficient operation of the Executive Director's office by managing communication, organizing meetings, and maintaining information flow.

United Nations Development Program

Beijing, China

INTERN

Nov. 2016 - Jun. 2017

- Played a key role in the organization of events promoting sustainable development, such as the United Nations Country Team Retreat 2017, World Environment Day 2017 held in Tongzhou, Beijing, and UN Environment Kubuqi Summer Camp.
- Supported the successful implementation of several UNDP projects, such as the UNDP-Rechsan sustainable rice cultivation project, UNDP-Rugao Hydrogen City project, and UNDP-JA Solar PV project.

Publication

Evolution of Government's Performance Through Yardstick Competition in the Spatial Game of Gubernatorial Elections
Tang, T., & **Zeng, K.*** (2018), Journal of Artificial Societies and Social Simulation, 21(2)

Ongoing Project

Practice-style spillovers in hospital care: evidence from lower extremity joint replacement surgery - Thesis
by STATA and Python
This project evaluates the spillover effects of a random control trail (RCT) implemented by Centers of Medicare and Medicaid Services. The RCT changed the payment type and try to reduce the total cost of joint replacement process. This project use inpatient data from Centers for Medicare & Medicaid Services with over 3 million observations. Procedure level analysis was conducted by Causal Forest/DML Forest (EconML, Python) treating high dimensional data of over 1,000 variables. Treatment effects are identified using DiD and Causal Forest.
Presented @

- Southern Economics Association 92nd Annual Meeting, Nov 2022
- The Annual Conference of the American Society of Health Economists, June 2022
- RGS 15TH RGS Doctoral Conference in Economics
- Midwest Economics Association 86th Annual Meetings

Accomplishments

2021	**Fellowship**, Graduate Center Fellow, 2021 Fall, Graduate Center, CUNY, 12000 USD Grant	*New York, USA*
2020	**Fellowship**, ARC fellowship, 2020 Spring, Graduate Center, CUNY, 5000 USD Grant	*New York, USA*
2018	**Fellowship**, Graduate Center Fellow, Graduate Center, CUNY, 12000 USD annually	*New York, USA*

PROFESSIONAL ACTIVITIES

Reviewer: *Computational Economics*
Mentee: Committee on the Status of LGBTQ+ Individuals in the Economics Profession

Reference

Deb, Partha
Professor, Hunter College and the Graduate Center, City University of New York
partha.deb@hunter.cuny.edu
Grossman, Michael
Professor, Graduate Center, City University of New York
mgrossman@gc.cuny.edu
Van Parys, Jessica
Assistant Professor, Hunter College, City University of New York
jessica.vanparys@hunter.cuny.edu
Fernandes, Laura
Senior Statistical Director, COTA
laurafernandes@cotahealthcare.com