# ZHENG (LUCAS) ZHANG

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# **EDUCATION**

# Ph.D. in Economics, University of California, Los Angeles

Expected Spring 2023

• Specializations: Econometrics(Theory and Applied), Causal Inference, Machine Learning

#### B.A. in Economics, University of California, Berkeley

May 2017

• Highest Honor in Economics; Highest Distinction in General Scholarship

#### SKILLS

Technical Skills

Python, SQL, R, MATLAB, LATEX, Microsoft Office

Soft Skills

Teamwork, Communication, Adaptability, Leadership, Work Ethic

## PROJECTS AND EXPERIENCE

#### Difference-in-Differences Models with Continuous Treatments

(Ph.D. Job Market Paper)

- Extended difference-in-differences models to allow for continuous treatments;
- Developed estimation and statistical inference results under the double/debiased machine learning framework;
- Programmed the double machine learning models in Python using packages such as scipy and sklearn;
- Provided extensive econometric analysis of a large-scale policy intervention with the Indonesian census dataset.

## **High-dimensional Conditional Density Estimation**

(Ph.D. Job Market Paper)

- Developed a unified machine learning framework for estimating high-dimensional conditional density;
- Developed a data-driven estimator with proven statistical optimality;
- Programmed the estimation algorithm in Python, specifically combining cross-fitting and many state-of-theart machine learners;
- Provided extensive applications in economics and causal inference.

## Teaching Assistant Consultant

Sep 2021 - Current

University of California, Los Angeles

- Co-facilitated with the Vice-chair on the development and training of new graduate student instructors;
- Supported graduate student instructors via consultation, observations, and providing feedback;
- Co-developed guidelines with the Vice-chair on the remote teaching and training during the pandemic.

Instructor June 2020 – Aug 2022

University of California, Los Angeles

- Instructor of undergraduate econometrics course;
- Topics: multivariate regression, omitted variable bias, diff-in-diff, Python(via Jupyter).

Research Assistant Aug 2015 – Jan 2022

University of California, Los Angeles; University of California, Berkeley

- Provided report on the impact of "big data" and machine learning on the economics profession and beyond.
- Provided review and simulations on cross-validations in high-dimensional econometrics methods.
- Provided extensive data support on the study of DoD spending multipliers.
- Analyzed legislative documents and studied the impact of regulations on alternative finances.