

# Jing Zhang

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## EDUCATION

### Case Western Reserve University, Cleveland, OH

- PhD in Epidemiology and Biostatistics

Sept 2019-Current

### Fudan University, Shanghai, China

- Master of Science in Biostatistics June 2019
- Bachelor of Medicine in Clinical Medicine June 2016
- Relevant Coursework: *Advanced Mathematics (I & II), Statistical Inference, Multilevel Model; Applied Linear Statistical Model, Biostatistics, Multivariate Statistics in Medicine, Introduction to Statistical Analysis Using R, Statistical Analysis Using SAS Program, Computer Software in Epidemiology, Clinical Epidemiology, Principles of Epidemiology, Preventive Medicine*

### Duke University, Durham, NC

Summer 2016

- A 6-week summer session taking two courses: *Linear Algebra and Differential Equations, Educational Psychology*
- Independently completed Case Studies and presented the results to professors and students

## ACADEMICS

### Simulation-based comparisons between generalized spatially varying coefficient models, *in manuscript* 2018-19

- Generated varying-coefficient simulation data based on logistic distribution, according to disease occurrence
- Compared the performance of generalized geographically weighted regression under different distribution
- Applied the result to tuberculosis in Shanghai, and Hand, Foot, and Mouth disease in 7 provinces in China

### Effects of spatial autocorrelation and hospitals on tuberculosis treatment outcome: An implication of tuberculosis control in a highly integrated city, *submitted* 2017-18

- Explored risk factors for poor tuberculosis treatment outcome in Shanghai, in both individual level and spatial aspect
- Found the effects of spatial autocorrelation and designated hospital on treatment outcome and the biased estimation of other risk factors if spatial information was ignored
- Visualized the preference of patients in treatment hospitals and gave constructive suggestions to the government

### A Simulation on the Effectiveness of the Robustness Index of Propensity Score Estimation, 2018

- Collaborated with Dr. Wei Pan, an associate professor at Duke University on the simulation-based study to prove the effectiveness of the robustness index in the presence of uncontrolled confounders
- Implemented the robustness index, probability values and percentage points for Pearson distributions in R
- Improve the method by augmenting the sampling space and bootstrap

### Other academic projects involved

- Traveling Waves of Hand, Foot, and Mouth Disease (HFMD) in Western and Eastern China: An Epidemiological, Spatial, and Mathematical Analysis 2017-18
- Efficacy of *Jia Wei Yang He* formula as an adjunctive therapy for asthma: study protocol for a randomized, double blinded, controlled trial 2017-18
- Corneal Densitometry after Small Incision Lenticule Extraction (SMILE) and Femtosecond Laser-assisted LASIK (FS-LASIK): 5-year Prospective Study 2019

## EXPERIENCE

### Fudan University, Research Assistant, Shanghai

Fall 2016-June 2019

- Independently completed data analysis projects in clinical trials, cross-sectional studies, longitudinal studies
- Wrote R code for various kind of analysis and shared it on github

### Fudan University, Teaching Assistant for a variety of courses, Shanghai

Fall 2016-Fall 2018

- *Statistics: Principles, Methods and R*, instructed by Prof. Hua Liang from George Washington University
- *Introduction to Biostatistics*, responsible for using Stata to realize statistical methods, have instructed more than 500 undergraduate and graduate students to do fundamental statistical analysis using Stata

**Shanghai Municipal Center for Disease Control and Prevention**, *Research intern*, Shanghai Fall 2017

- Data preparation for tuberculosis surveillance data in Shanghai from 1992-2016
- Analyzed the spatial and temporal features for the prevalence of tuberculosis among different population
- Found spatial clusters for poor tuberculosis treatment outcome and analyzed the risk factors for it

**Safe Kids Worldwide**, *Intern*, Shanghai Fall 2016-June 2019

- Translated valuable articles to spread the ideas of keeping kids safe from injuries and child passenger safety in China

**Huashan Hospital**, *Clinical Intern*, Shanghai Fall 2015-Spring 2016

- Rotated among 24 different departments in 48 weeks in Huashan Hospital, one of the top 3 hospitals in China

**East China Normal University**, *Summer Course Participant in Frontiers Topics in Statistics*, Shanghai Summer 2018

- Topics included but not limited to Semiparametric, High-dimensional data analysis, Measurement Error Model

**Fudan University**, *Summer Course Participant in Advanced Statistical Methods in Public Health*, Shanghai Summer 2017

- Topics included but not limited to Bayesian Analysis, Generalized Additive Models, Multi-level Regression Models

**University of Alberta (Canada)**, *Summer Course Participant in Frontiers of Global Health*, Shanghai Summer 2013

- Learnt with 3 Canadian professors and 15 Canadian students on global health topics and health policy in China

## **SKILLS and HONORS**

- Language: Native in Chinese; Fluent in English
- English Proficiency: GRE 326+4.0, TOEFL 103
- Programming Skills: R, SAS, Stata
- Recipient of Outstanding Student in Fudan University (twice) 2012 & 2015
- Excellent Student Scholarship every year 2011-2019