DEJI **SUOLANG**

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EDUCATION

Aug 2018 - Apr 2020 **M.S. in Survey Methodology**
University of Michigan - Ann Arbor, Ann Arbor, MI

Sept 2014 - Jul 2018 **B.A. in Sociology**
Nanjing University, Nanjing, China

Feb 2017 - Jun 2017 **Exchange Program**
Utrecht University, Utrecht, Netherlands

WORK EXPERIENCE

Jun 2020 - Current **Research Assistant**, Johns Hopkins Medicine, Baltimore, MD

- Design sampling methodologies, survey instruments and data management procedures for evaluation studies that target specific health populations, health care providers and institutions, in consultation with PI
- Manage and execute analyses of complex datasets derived from patient-or provider-generated health survey and electronic health record, write analysis plans, select analytical methods given the study objectives

Sept 2018 - Apr 2020 **Research Associate**, Institute for Social Research, Ann Arbor, MI

- Created analytic datasets by synthesizing data from multiple sources, conducted and interpreted quantitative data using multivariate technique and advanced statistical approach
- Assisted with all aspects of the large-scale national survey projects and the IRB submission
- Performed literature searches, developed written reports, infographics, briefings and ad hoc analysis to summarize research findings, and turned them to the publications

Jan 2020 - Apr 2020 **Survey Consultant**, NumFOCUS, Austin, TX

- Designed and programmed a survey to evaluate Python-NumPy users and open source projects community
- Developed strategies to handle sampling selection bias, missing data, data security and confidentiality

Jun 2018 - Aug 2018 **Data Analyst Intern**, National Bureau of Statistics, Lhasa, Tibet

- Maintained database, employed data visualization tools to detect discrepancies and display analysis procedure
- Developed multilevel models to evaluate the changes in economic indicators over the years in different regions

Dec 2016 - Jan 2017 **Research Analyst Intern**, Center for Disease Control and Prevention, Lhasa, Tibet

- Assisted PI with data management and analysis about the prevalence and mortality of hydatid disease
- Conducted routine data refresh and update, determinized data/information needs, developed complex tools for electronic data collection, and provided user training, support, and documentation

RESEARCH EXPERIENCE

2020-Current **Racial Differences in Stroke Care in U.S. Hospitals**, Baltimore, MD

- Extract and manipulate administrative data from National Impatient Sample from 2012-2017
- Employ logistic regression model to evaluate intracerebral hemorrhage and ischemic stroke differs between hospitals serving varying proportions of minority patients

202-Current **End-of-life Care Perceptions and Preferences Among Surrogates Decision-Makers**, Baltimore, MD

- Develop comprehensive survey instruments and research protocol to assess surrogates' knowledge, attitudes and decision-making process for the patient with severe stroke at Johns Hopkins Hospital
- Extract data/information on targeted variables from patients' medical chart, routine data refresh and checking

2020-Current **Implicit Bias Among SLP in Clinical Decision-Making Regarding PEG-tube Placement**, Baltimore, MD

- Designed a discrete choice experiment to evaluate physicians implicit bias on dysphagia patients, tested and improved the exiting survey instrument
- Proposed raw data re-coding methodologies and statistical analysis plan

2020 **User Experience Evaluation for Starboard.Corp**, Traverse City, MI

- Conducted a series of UX research for a supply chain game simulation tool, improved the user experience to optimize network and compare cost differences

2019-2020 **American Family Health Study**, Ann Arbor, MI

- Transited the NSFG questionnaire to a modular web survey, performed survey testing and managed questionnaire revisions throughout the testing cycle
- Conducted full design-based analyses and programmed SAS codes to draw matched sample for comparison.
- Visualized key statistics comparison between NSFG and hypothetical estimates with R programming

2019 **Presidential Election Trends Prediction with Web Data**, Ann Arbor, MI

- Scarped data from gambling website, Twitter API and Google search, cleaned/coded organic data with R
- Employed sentiment analysis and linear regression to predict the election trends, visualized analysis results

2019 **Sampling Design for Michigan Educational Department**, Ann Arbor, MI

- Developed multi-stage selection plan and standard error calculation model for a probability-based proportionate sample of teenagers that used to monitor cigarette smoking and drug use with a budget of $500,000 and population size of 830,138

2018-2019 **Optimization of Responsive and Adaptive Survey Design**, Ann Arbor, MI

- Developed optimized approaches for responsive design in the light of adaptive interventions in clinical trials to improve response rate and response data quality

2018-2019 **National Household Food Acquisition and Purchase Survey**, Ann Arbor, MI

- Evaluated the efficiency of finding SNAP households (hard-to-reach population) through zero-inflated negative binomial regression model with the covariates form census data
- Conducted summary key statistics and latent class regression model to profile the respondents' characteristics

2017-2018 **Using Search Index to Predict the Incidence of HIV/AIDS in China**, Nanjing, China

- Cleaned and standardized the original raw data from the internet search index
- Visualized HIV/AIDS incidences in thirty provinces in China in five-year period with STATA

2017 **Municipality Policy Framework: Building a Healthy Future**, Utrecht, Netherlands

- Designed qualitative research on teenager obesity and the social determinant of health behavior

PUBLICATIONS

He, G., Chen, Y., Chen, B., Wang, H., Shen, L., Liu, L., **Suolang, D**., ... & Du, S. (2018) Using the Baidu Search, Index to Predict the Incidence of HIV/AIDS in China. *Scientific reports*, *8*(1), 9038.

Hu, M., He, W., **Suolang, D**., Zhang, S., West, B., Kirlin, J. A., & Zhang, X. Response patterns in a multi-day diary survey: implications for adaptive survey design. *Survey Research Methods* (under review).

West, B., **Suolang, D**., Ameil, D., Wanger, J. Toward the Optimization of Responsive and Adaptive Survey Designs. Survey Research Methods (under review).

CONFERNECE PRESENTATIONS

2020	"Presidential Election Trends Prediction with Web Data." BigSurv20. Utrecht, Netherlands. (Submission accepted, will be virtually held due to the COVID-19)
2020	"Toward the Optimization of Responsive and Adaptive Survey Design." Michigan Student Symposium for Interdisciplinary Statistical Sciences (MSSISS). Ann Arbor, MI
2019	"Response patterns in a multi-day diary survey: implications for adaptive survey design." American Association for Public Opinion Research (AAPOR). Toronto, ON, Canada

HONORS & AWARDS

2020	Best Poster Presentation Award. Michigan Student Symposium for Interdisciplinary Statistical Sciences
2019	Travel Grant. University of Michigan Program in Survey Methodology
2018	Nanjing University Outstanding Graduate Award
2016	Research Grant. A Sociolinguistic Study on Tibetan-Chinese Code-mixing in Lhasa City

SKILLS & INTERESTS

Health & Social Science	Social Determinant of Health, Medical Decision-Making, Racial Disparities in Health Care and Care Delivery
Statistical & Data Science	Multilevel Modeling, Structural Equation Model, Multivariate Analysis, Complex Sample Analysis, Computing and Data Display, Network Analysis, Statistical Inference
Survey Science	New Modes of Data Collection, Adaptive/Responsive Survey Design, Total Survey Error, Survey Sampling, Questionnaire Design, Quantitative/Qualitative Research
Programming	R, STATA, SPSS, SAS, Python

LANGUAGES

English, Tibetan, Mandarin/Chinese

Last Updated: Sept 2020