

Yikai (David) Zhao

Texas A&M University

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EDUCATION

Texas A&M University	College Station, U.S	09/2015 - 05/2020
• Ph.D. Candidate in Communication		
• M.S. in Statistics	College Station, U.S	09/2017 - 12/2019
North China Electric Power University	Beijing, China	09/2011 - 06/2015
• B.A. in Advertising		
The University of Seoul	Seoul, Korea	08/2014 - 01/2015
• Exchange student		

RESEARCH PROJECTS & PROFESSIONAL WRITING

Zhao, Yikai. 2018. "Testing the Measurement Invariance of Nativism," *Social Science Quarterly*. <https://doi.org/10.1111/ssqu.12594>

Davis, Nicholas, Goidel, Kirby, **Zhao, Yikai.** 2019. "The Meaning of Democracy among Mass Publics" [submitted to British Journal of Political Science]

Zhao, Yikai, Goidel, Kirby. 2018. "Investigating the Increase of Social Trust in Community After Hurricane Harvey in Texas Coast." [In progress]

Zhao, Yikai. "More Powerful NLP Models: When Pytorch-transformers Meet Fastai (w/ Google Colab)," *Towards Data Science*

Zhao, Yikai. "The Ultimate EDA Visualization in R - Rainplot," *Towards Data Science*

STATISTICAL LEARNING APPLICATIONS

Presented methods to incorporate Pytorch-transformers BERT models into Fastai framework for NLP projects

Achieved top 15% in an Kaggle Histopathologic Cancer Detection computer-vision contest with an ensemble of DenseNet and ResNet

Optimized and implemented ML models from scratch: regularized Multinomial Logistic Regression, KNN and ResNet.

RESEARCH SKILLS

Four years of experience in social science research methods and inferential statistics

Proficient in experimental design, regression analysis, multilevel modeling, structural equation modeling etc.

Two years of experience in applying Deep Learning models (CNN, RNN, Attention-based) on image, tabular and textual data.

Proficient in programming in R, Python, SQL, Pytorch

Proficient in computational tools: Cloud computing, Shell, markdown, Shiny, remark.js, Google Colab, Git

Experienced: HTML, CSS, STATA, SPSS, C++

ML essentials: scikit-learn, fast.ai, caret, Pytorch-transformers, SHAP

RESEARCH CONFERENCES

European Political Science Association (EPSA)	<i>06/2019</i>
The Meaning of Democracy among Mass Publics	
American Association for Public Opinion Research (AAPOR)	<i>05/2019</i>
Presentation topic: The consequences of Hurricane Harvey on Resilience Related Attitudes and Behaviors	
Sea Grant Symposium	<i>04/2019</i>
Presentation topic: Disasters, Political Confidence, and Social Trust: A Panel Analysis	
Chinese Internet Research Conference (CIRC)	<i>08/2017</i>
Presentation topic: Political and technical affordances of social media in China	
Global Fusion Conference	<i>10/2016</i>
Presentation topic: Panopticon in the People's republic of WeChat	
PCA/ACA Conference Section Chair	<i>03/2016</i>
Presentation topic: A strategic way in promoting and education of AED use in China	

ACADEMIC WORK EXPERIENCE

Public Policy Research Institute (PPRI)

Data Analyst Intern

05/2018 - 08/2019

- Conducted end-to-end analysis for three large projects: Hurricane Harvey Survey data, World Value Survey and Nativism world trend (Ipsos)
- Developed a Shiny app for visualizing diverse clusters from a Latent Class Model
- Contributed to a Python Debugging open source project Pysnooper on its compatibility to accept customized parameters.
- Parsed and extracted news content from Lexis-Nexis database using BeautifulSoup and Regex
- Conducted Measurement Invariance test for the Nativism construct in a comparative politics project from Ipsos global Nativism survey
- Advised the design of questionnaire for Regional Health Survey for the Center for Community Health Development in College Station, TX.

ACADEMIC TEACHING EXPERIENCE

Instructor, Texas A&M University, Department of Communication

COMM 308 - Research methods in Communication

09/2019 - Present

COMM 205 - Public speaking for STEM majors

02/2016 - 09/2019

COMM 203 - Public speaking

02/2016 - 09/2019

SERVICES

Reviewer for Media, Culture & Society

1 piece in 2018

Reviewer for Social Science Quarterly

2 pieces in 2018, 2019

Graduate and Professional Student Government
delegate for Communication Department

09/2017 - 01/2018

FEATURED COURSEWORK

COMM 610: Social Science Method in Communication

COMM 689: Advanced Social Science Methods

STAT 636: Applied Multivariate Analysis

STAT 638: Applied Bayes Methods

STAT 608: Regression Analysis

STAT 646: Statistics in Bioinformatics

STAT 630: Overview of Math Statistics

STAT 641: Methods of Statistics 1

STAT 642: Methods of Statistics 2

ECEN 765: Machine Learning with Networks

STAT 624: Database & Computational Tools of Big Data

STAT 656: Applied Data Analytics

STAT 689: Advanced Statistical Computation

PROFESSIONAL REFERENCES

Dr. Kirby Goidel (Chair of Dissertation Committee)

Department of Communication, Public Policy Research Institute, Texas A&M University

Email: kgoidel@tamu.edu

Dr. Alan Dabney (Chair of Statistics MS Committee)

Department of Statistics Texas A&M University

Email: adabney@stat.tamu.edu

Dr. William Coombs

Department of Communication, Texas A&M University

Email: timothy.coombs@tamu.edu

Dr. Hart Blanton

Department of Communication, Texas A&M University

Email: hblanton@tamu.edu