

# Yikai Zhao

zdwzhaoyikai@gmail.com | 979.264.1086

<https://www.linkedin.com/in/yikaizhao/>

<https://github.com/DavidykZhao>

ykHzao.com

## EXPERIENCE

### **PUBLIC POLICY RESEARCH INSTITUTE | DATA ANALYST INTERN**

May 2018 – Aug. 2019 | College Station, TX

- Conducted end-to-end data analysis for three large projects: Hurricane Harvey Survey data, World Value Survey and Nativism world trend (Ipsos).
- Developed an Shiny app for visualizing diverse clusters from a Latent Class Model
- Contributed to a Python debugging open source project Pysnooper on its addition of customized parameters
- Parsed and extracted news content from Lexis-Nexis database using Beautiful Soup and Regex
- Conducted Measurement Invariance test for the Nativism variable for the Ipsos global nativism survey
- Advised the design of survey for Regional Health Survey in College Station, TX

### **STATISTICAL LEARNING APPLICATIONS |**

May 2017 – present

- 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
- Interpreted machine learning models using Tree-based and Kernel SHAP in NLP and tabular data projects
- Optimized a regularised Multinomial Logistic regression from scratch with base R

## PUBLICATION & PROFESSIONAL WRITING

- Zhao, Yikai. 2018. "Testing the Measurement Invariance of Nativism," Social Science Quarterly. doi.org/10.1111/ssqu.12594
- Davis, Nicholas, Goidel, Kirby, Zhao, Yikai. 2019. "Test of democracy variables across the World Value Surverys" [Submitted]
- Zhao, Yikai. 2019. "More powerful NLP models: When Pytorch-transformers meets Fastai (w/ Google Colab)," Towards Data Science. (Retweeted by NLP giant Hugging Face)
- Zhao, Yikai. 2019. "The ultimate EDA visualization in R," Towards Data Science.

## EDUCATION

### **TEXAS A & M UNIVERSITY | PH.D. IN COMMUNICATION**

Expected May 2020 | College Station, TX

Advisor: Dr. Kirby Goidel

Dissertation title: What deep learning could bring to frame analysis

Won departmental dissertation advancement award \$6000

### **TEXAS A & M UNIVERSITY | M.S. IN STATISTICS**

Expected December 2019 | College Station, TX

Concentrated in Statistical learning & computation | College Station, TX

Related Coursework: ECEN 765 Machine Learning with Networks • STAT 624 Database & Computational tools

• STAT 638 Applied Bayes Methods • STAT 636 Applied Multivariate Analysis • STAT 689 Statistical computations

### **NORTH CHINA ELECTRIC POWER UNIVERSITY | BS IN ADVERTISING**

Beijing, China | Seoul, Korea | Nantou, Taiwan

## PROGRAMMING & TOOLS

### **PROGRAMMING**

Proficient:

Python • R • Pytorch • MSSQL

Familiar:

HTML • CSS

### **COMPUTATIONAL TOOLS**

Cloud computing • Google Colab • Git

Shiny (R) • Markdown •  $\text{\LaTeX}$

ML essentials:

scikit-learn • fastai • Pytorch-transformers • SHAP