# CURRICULUM VITAE

## Yikai Zhao

### EDUCATION

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|---|---|
| 2015 - 2020 | Texas A&M University, Ph.D.<br>Major: Communication<br>Advisor: Kirby Goidel, Ph.D. |
| 2017 - 2019 | Texas A&M University, M.S.<br>Major: Statistics<br>Advisor: Alan Dabney, Ph.D. |
| 2011 - 2015 | North China Electric Power University, B.A.<br>Major: Advertising |

### RESEARCH SKILLS

- Mixed methods & computational social science researcher. Excel at survey, interview and predicative modeling (Machine learning) methodologies.

- Four years' experience in psychometric data analysis and social science research design.

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

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

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

- 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

- Machine Learning essentials: scikit-learn, fasti.ai, caret, Pytorch-transformers, SHAP

## ACADEMIC WORK EXPERIENCE _____

### PUBLIC POLICY RESEARCH INSTITUTE
*05/18 – 08/18*      BRYAN, TX

- Conducted end-to-end data analysis independently for three large projects: Coastal Resilience survey, World Value Survey and Nativism world trend (Ipsos); presented findings to academic conferences and survey sponsors

- Advised the design of the questionnaire for the Regional Health Survey in College Station, TX.

- Developed a Shiny app for visualizing diverse clusters from a Latent Class Model for a political science conference.

- Contributed to a Python debugging open source project Pysnooper on its addition of customized parameters.

- Parsed and extracted news content from the Lexis-Nexis database using Beautiful Soup and Regex for a political communication research.

- Conducted Measurement Invariance test for the Nativism variable for the Ipsos global nativism survey.

### TEXAS A & M UNIVERSITY
*09/15 – PRESENT*      COLLEGE STATION, TX

- Designed and instructed the course COMM-308 Research Methods in Communication

- Offered a visualization in ggplot2 workshop for undergraduate students

- Instructed the course COMM-203 Public Speaking

## RESEARCH PROJECTS & PROFESSIONAL WRITING _____

**Zhao, Y.** (2018). Testing the Measurement Invariance of Nativism. *Social Science Quarterly.* doi.org/10.1111/ssqu.12594

Davis, N., Goidel, K., **Zhao, Y.** (2019). The Meaning of Democracy among Mass Publics. *British Journal of Political Science.* [under review]

**Zhao, Y.** (2019). More powerful NLP models: When Pytorch–transformers meets Fastai. *Towards Data Science. (\*Retweeted by NLP giant Hugging Face)*

**Zhao, Y.** (2019). The ultimate EDA visualization in R. *Towards Data Science.*

## MANUSCRIPTS IN PREPARATION

**Zhao, Y.**, **Goidel, K**. Investigating the Increase of Social Trust in Community After Hurricane Harvey in Texas Coast.

**Zhao, Y.** The Motivations and Barriers about Posthumous Organ Donation of Chinese International Students in America.

**Zhao, Y.**, Kluver, R. Technical and Political Affordances of WeChat – a Critical Analysis.

**Zhao, Y.** The Motivations and Barriers about Posthumous Organ Donation of Chinese International Students in America.

## CONFERENCE PRESENTATIONS

Davis, N., Goidel, K., **Zhao, Y.** (2019). The Meaning of Democracy among Mass Publics. Talk presented at the *European Political Science Association (EPSA),* Belfast, UK.

Goidel, K., **Zhao, Y.**, Davis, N. (2019). The consequences of Hurricane Harvey on Resilience Related Attitudes and Behaviors. Talk presented at the *American Association for Public Opinion Research (AAPOR),* Toronto, Canada.

Goidel, K., **Zhao, Y.**, Davis, N. (2019). Disasters, Political Confidence, and Social Trust: A Panel Analysis. Talk presented at the *Sea Grant Symposium,* College Station, TX.

**Zhao, Y.**, Kluver, R. (2017). Content analysis of the global media coverage of the US election from the media monitoring system. Talk presented at the *Aggie Agora Conference,* College Station, TX.

**Zhao, Y.**, Kluver, R. (2017). Political and technical affordances of WeChat in China. Talk presented at the *Chinese Internet Research Conference (CIRC),* Dallas, TX.

**Zhao, Y.** (2016). The Motivations and Barriers about Posthumous Organ Donation of Chinese International Students in America. Talk presented at the *Global Fusion Conference,* Philadelphia, PA.

**Zhao, Y.** (2016). A strategic way in educating of AED use in Chinese university campuses. Talk presented at the *PCA/ACA Conference,* Seattle, WA.

## HONORS AND AWARDS

2019        **Summer Time Advancement Research Award** ($ 6000)
              Awarded for Dissertation entitled: "Experimenting with different NLP deep learning architectures in frame (textual) analysis."

2017        **Student Travel Award** ($ 1000)

## PROFESSIONAL SERVICES

**Ad-hoc Reviewer**
        Media, Culture & Society
        Social Science Quarterly

**Professional appointment**
        Graduate and Professional Student Government delegate for Communication
Department

## FEATURED COURSEWORK

### STATISTICS & RESEARCH METHODS

- COMM 610: Social Science Method in Communication
- COMM 663: Digital methods
- COMM 689: Advanced Social Science Methods
- COMM 689: Qualitative Social Science Methods - Interview
- 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

SOCIAL SCIENCE THEORIES:

- COMM 670: Family Health Communication
- COMM 663: Media Effects
- COMM 670: Health Outcomes Communication
- COMM 651: Presidential Rhetoric
- INTA 672: East Asian Security
- COMM 659: Public Sphere
- COMM 662: Survey of Telecomm Media Studies
- COMM 663: Media Framing
- COMM 637: Crisis Communication
- COMM 685: Political Communication
- COMM 658: Survey in Health Communication

## 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

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