

Yikai Zhao

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EDUCATION

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

May 2020 | College Station, TX

Dissertation title: Experimenting with different NLP deep learning architectures in frame (textual) analysis

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

December 2019 | College Station, TX

NORTH CHINA ELECTRIC POWER UNIVERSITY | B.A. IN ADVERTISING

May 2015 | Beijing, China

EXPERIENCE

PUBLIC POLICY RESEARCH INSTITUTE | SURVEY SPECIALIST

May 2018 – Aug. 2018 | 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 questionnaire for Regional Health Survey in College Station, TX
- Developed an Shiny app for visualizing diverse clusters from a Latent Class Model for a political science conference
- Parsed news content from 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 | COURSE INSTRUCTOR

Sept. 2015 – present | College Station, TX

- Designed and instructed the course COMM-308 Research Methods in Communication (survey, interview content analysis)
- Instructed the course COMM-203 Public Speaking

MACHINE LEARNING PROJECTS

May 2017 – present

- Presented a method to incorporate Pytorch-Transformers BERT models into Fastai framework for NLP projects; widely used by NLP community
- Achieved Top 15% in an Kaggle Histopathologic Cancer Detection computer-vision contest with an ensemble of DenseNet and ResNet
- Introduced machine learning interpretation method, Tree-based SHAP values, for house pricing prediction in a STAT seminar
- Optimized and implemented ML models from scratch: regularised Multinomial Logistic regression, Kmeans and ResNet

PUBLICATION & 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., Randy, K. Technical and Political Affordances of WeChat - a Critical Analysis. Media, Culture & Society [under review]
- Zhao, Y. 2019. More Powerful NLP models: When Pytorch-transformers Meets Fastai (w/ Google Colab). Towards Data Science (Retweeted by NLP giant Hugging Face)
- Zhao, Y. 2019. The Ultimate EDA Visualization in R. Towards Data Science

PROGRAMMING & TOOLS

PROGRAMMING

Proficient:

Python • R • Pytorch • MSSQL

Familiar:

HTML • CSS • STATA

COMPUTATIONAL TOOLS

Cloud computing • Google Colab • Git

Shiny (R) • Markdown • \LaTeX

ML essentials:

scikit-learn • fastai • Pytorch-transformers • SHAP