FAN BU

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https://fanbuduke17.github.io/

EDUCATION

Department of Statistical Science, Duke University *2017 - present*
Ph.D. in Statistics.

School of Mathematical Sciences, Peking University *2013 - 2017*
B.S.(with honor) in Data Science and Big Data Technology.

RESEARCH INTERESTS

- Applied Bayesian Statistics;
- Statistical machine learning;
- Network analysis;
- Stochastic and dynamic modelling;
- With applications in social sciences, natural languages, and sports analytics.

PUBLICATIONS AND PREPRINTS

Fan Bu, Allison E. Aiello, Jason Xu, and Alexander Volfovsky (2019). Likelihood-based Inference for Partially Observed Epidemics on Dynamic Networks. *arXiv:1910.04221.* (Winner of 2020 SBSS Student Paper Award.)

Fan Bu, Sonia Xu, Katherine Heller, and Alexander Volfovsky (2019). SMOGS: Social Network Metrics of Game Success. *The 22nd International Conference on Artificial Intelligence and Statistics (AISTATS).*

Wei Zhang, **Fan Bu**, Derek Owen-Oas, Katherine Heller, and Xiaojin Zhu (2018). Who Started It? Identifying Root Sources in Textual Conversation Threads. *arXiv:1809.03648.*

INVITED TALKS AND PRESENTATIONS

November 2019. Invited talk at the 3rd Annual AT&T Labs Graduate Student Symposium.

September 2019. Invited talk at the 2019 New Englangd Symposium on Statistics in Sports (NESSIS).

April 2019. Poster presentation at the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS).

March 2019. Spotlight talk at the Duke Machine Learning Day.

June 2018. Poster presentation at the 2018 ISBA World Meeting.

December 2017. Poster presentation at Women in Machine Learning Workshop (WiML) 2017.

SKILLS

- **Programming Languages**: R, Python, MATLAB, Julia, SQL
- **Languages**: Mandarin (native) and English (proficient)

SERVICES

Spring 2020. Teaching assistant for *Statistics Case Studies.*

Fall 2019. Teaching assistant for *Bayesian Methods and Modern Statistics.*

Jan 2020 & August 2019. Reviewer for *Science Advances.*

August 2018. Instructor of *Duke Statistical Science Bootcamp.*

OTHER ONGOING AND PAST RESEARCH

Historical tone change from Middle Chinese to modern Beijing Mandarin: Usage-based phonology and modeling (2019). (Ongoing work with Haowen Zhang and Maria Giavazzi, Ecole Normale Supérieure de Paris.)

The Evolution of Popularity and Images of Characters in Marvel Cinematic Universe Fanfictions (2018). (Technical report at *arXiv:1805.03774*)

Traffic Speed Nowcasting Based on Urban Road Network and Artificial Neural Network (2017). (B.S. thesis)

Detection of Differential Genetic Networks (2016). (Supported by National Undergraduate Innovation Grant of China)