Tong Wang

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Education

Ph.D. in Statistics (3rd year)   *expected* **May 2022**
Department of Statistical Sciences, Fox School of Business, Temple University, Philadelphia, USA

M.S. in Bioinformatics   **2017**
Department of Informatics and Data Science, School of Mathematical Sciences**,** Nankai University, China

B.S. in Statistics   **2014**
Department of Statistics, School of Mathematical Sciences, Sichuan University, China

Research Interests

Multi-Arm Bandit Problems, Statistical Modeling, Hypothesis Testing, Statistical Computing,
Machine Learning, Bioinformatics, Causal Inference.

Awards and Honors

Temple University Presidential Fellowship, USA   **2017-2022**

National Award for Graduates (0.2%), China   **2016**

Excellent First-Year Graduate Student Scholarship, China   **2014**

Honorable Mention, Mathematical Contest in Modeling, USA   **2013**

Merit-based Award, First class, China   **2012**

Publications

- **Tong Wang,** Wei Zheng, Qiqige Wuyun, Zhenfeng Wu, Jishou Ruan, Gang Hu and Jianzhao Gao. PrAS: Prediction of protein amidation sites using multiple feature extraction. *Computational Biology and Chemistry.* 2017(66) 57-62. http://dx.doi.org/10.1016/j.compbiolchem.2016.11.004

- **Tong Wang**, Dacheng Ma, Peng Tong. Prediction model for water needs and supply and identification of corresponding water strategy of China in 2025. *China Science and Technology Review*. 2013(36) 210-212.

- Yang Shi, **Tong Wang,** Youle Wang. Survey on happiness of southwest college students based on principal component analysis. *The Guide of Science & Education*. 2013 (19) 251-252. DOI:10.3969/j.issn.1674-6813.2013.19.135

Software

- **PrAS** (free download from https://sourceforge.net/p/praspkg)
  It was developed to predict amidation sites, based on SVM classifier. It can obtain publically available datasets from web text mining based on XML. In the software, the relevant biochemical features are encoded using Python and the prediction models are built in R.

- **Strategy Decision GUI**
  This GUI was designed specifically for the use of China Navy. It mainly provides convenience for commanders when they make decisions in the military scenarios.

- **R package "varjmcm"** (free download from https://cran.r-project.org/web/packages/varjmcm/index.html)
  The goal of the package is to equip the 'jmcm' package with estimations of the covariance of estimated parameters. Two methods are provided. The first method is to use the inverse of estimated Fisher's information matrix, and the other is bootstrap based.

Visiting Experiences

- Department of Statistics, **The Chinese University of Hong Kong**   **Jul, 2016**
- Department of Mathematics**, Hong Kong University of Science and Technology**   **Jul, 2013**

Employment

Research Assistant, Department of Statistical Sciences, **Temple University**   **2018**

- Provided a binning approach to test the pseudo-randomness.
- Explored bias of Multi-Arm Bandit algorithms and its influence on the clinical trials.

Research Assistant, Department of Informatics and Data Science, **Nankai University**   **2014 − 2017**

- Developed a software called PrAS for the prediction of protein amidation sites based on SVM
- Mathematical Modeling for China Navy Military (CSSC Systems Engineering Research Institute)

Summer Intern, **United Nations (UN), Beijing**   **Jun – Oct, 2015**

- Analyzed UN population data and prepared presentations

Quant Investment Intern, **Huaxi Futures Co. Ltd**   **Oct – Dec, 2013**

- Developed trading strategies using technical analysis and fundamental analysis based on Matlab
- Proficiency in using TradeBlazer* to implement, backtest and optimise strategies

    *TradeBlazer is a fixed income trading, settlement and clearance system for financial institutions. See: http://tradeblazer.com

Computer skills

- Statistical Softwares: SAS, R, SPSS, Eviews
- Programming Languages: Python, Matlab
- Design: GUI design, Adobe Illustrator, Adobe Photoshop
- Others: Linux command, Web Crawler

Activities

- Member, Badminton Club in Temple University
- Director for the organization division, Volleyball Club in Sichuan University