

# **Xiaowan (Kelly) Zheng**

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## **Education**

**Georgetown University**

**Department of Physics & McDonough School of Business**

*Ph.D. in Physics, Industrial Leadership Track, October 2017*

**University of Maryland**

**Department of Communication**

*M.S. in Conference Interpreting, May 2017*

**Tianjin University**

**Department of Science & Department of Arts**

*B.S. in Applied Physics; B.A. in English, June 2008*

## **Industrial Experience**

**Senior Data Science Intern**

**BlueLabs Analytics, Inc.** 2017.9-present

- Cleaned, transformed, and aggregated 2 billion clickstream records
- Built predictive models using high order Markov Model, k-means Clustering, and RNN LSTM
- Documented processes and evangelized new approaches

## **Academic Experience**

**Algorithm Develop**

**Georgetown University** 2014.1-2017.8

- A Ph.D. dissertation project: developed five algorithms with different functionalities to improve MRI quality
- Designed and performed testing on contrast agents' properties and simulated large data sets
- Performed feature engineering, k nearest neighbor, and binary matrix to optimize algorithms

**Data Analytics**

**Dillard's, Inc.** 2016.9-2016.12

- Pulled and cleaned up database with billions of records
- Researched profit-relation questions and analyzed performances of stores
- Designed demand forecasting model using clustering and regression for price optimization

**Data Analytics**

**Dognition** 2016.3-2016.5

- Developed queries and cleaned up 3-years' database
- Analyzed relation between completion of online tests and user and testing characteristics
- Assessed the existing promotion and developed actionable business recommendations

## **Other Experience**

**Teaching Fellow**

**Georgetown University** 2010.9-2017.8

- Organized and lead lectures and labs, communicated technical concepts to students without tech background
- Won the annual Outstanding Teaching Award of American Association of Physics Teachers

## **Technical Skills**

- **Programming Language:** Python, MATLAB, Octave, C++, Jupyter Notebook
- **Data Management and Visualization:** MySQL, Teradata, SQL server, Tableau
- **Statistical Methods:** regression, hypothesis testing, dimension reduction, principal component analysis
- **Machine Learning:** classification, clustering, neural networks, support vector machines, data compression

## **Presentation, Publication and Fun Facts**

- **Presentation:** American Physics Society March Meeting, Chinese Physics Society Annual Meeting
- **First-Author Publication:** 2 published papers and 2 submitted papers
- **Fun Facts:** A professional Mandarin interpreter who has traveled to 20+ countries