ZIPINGXU

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EDUCATION

Peking University Beijing, China
Yuanpei College Major in Data Science 09 2014 – 07 2018

- GPA: 3.66/4.00; admitted on basis of performance on national college admissions exam (12/527000)
- Selected awards:
  Lee Wai Wing Scholarship (top 5% 10/2015) Merit Student (10/2015 and 10/2017)
  Second Prize for Jiangzehan Cup of Modeling Contest (08/2016) Second Prize of ACM (05/2015).

WORK AND RESEARCH EXPERIENCE

Peking University Guanghua School Beijing, China
Research Assistant to Professor Songxi Chen 03 2016 – Present

- Statistical analysis, data crawling with Python, data cleaning with R, developing models, visualization with R.
- Heating Effects Assessment:
  Built a nonparametric model to adjust the air quality with meteorological variables to get a fair comparison between cities with and without heating.
  Spatial and temporal bootstrap method was used to estimate the confidential interval.
- Technical report on air quality assessment in Beijing:
  Write one of the sections in this report and draw most figures to analyze the effects of heating on air quality in Beijing. The report was read by over a hundred thousand people.
- Testing for climate change:
  Design a hypothesis testing framework to test climate change in North China on gridded data and analyze its impacts on air quality. Work as first author to write the a paper for this project.
  Parallelization tools such as MPI and OpenMP, were used to accelerate computation. We controlled the false discovery rate to overcome the high dimension in gridded data.

Beijing Institute of Technology, School of Management and Economics Beijing, China
Research Assistant to Professor Tianan Yang 09 2016 – 03 2017

- Stress and health scores calculation:
  Build Rasch model and detect differential item function to achieve a reasonable health measurement.
  A multi-level models was applied to study the relationship between health scores and demographic variables and analyze the indication for policy on health and environment.

Start up company, Deep Asset Beijing, China
Quantitative research internship advised by Dr. Jian Guo 07 2017 – 11 2017

- Develop new strategies on stock and futures:
  Apply machine learning and statistical method on the prediction of future price.
  Implement and optimize a trading and simulating system for stock market with python and C++.

PUBLICATIONS

[1] **Xu, Z.**, Chen, S. X. & Wu, X. (2017). Climate Change and Impacts on Air Quality in North China (Working paper)

[2] Zhang, S., Guo, B., Dong, A., He, J., **Xu, Z.**, & Chen, S. X. (2017). Cautionary tales on air-quality improvement in Beijing. Proceeding of Royal. Society. A (Vol. 473, No. 2205, p. 20170457).

EXTRA-CURRICULAR ACTIVITIES

Seoul National University, IEEE Pacific Visualization Symposium Seoul, Korea
Under supervision of Prof. Xuanru Yuan 04 2017

- Presentation: How wind affects air pollution in Beijing?
- Develop a visualization tool with unity3D to explore the interaction between air pollution and wind. Present the result by a video.

Peking University, Yuanpei College Beijing, China
Vice - Minister of Student Union of Yuanpei college 09 2015 – 01 2016

- Propaganda, designing posters for lectures held by department. Train freshmen for Photoshop skills.
- Organized two lectures on Sociology and Opera. Received much attention.

ADDITIONAL INFORMATION

- Research Interests: Passionate on machine learning algorithms, statistics. Interested the application of quantitative method on real world problems.
- Computer Skills: Skilled at Python, R and Matlab. Know about JavaScript for web development. Familiar with popular deep learning libraries such as Tensorflow and Keras. Skilled at data crawling by python. Also good at Photoshop and Office.
- Languages: Native Mandarin Chinese speaker. Fluent in English
- English: TOEFL: 94/120; GRE: 322/340; IELTS: 7.5/9
- Selected Courses:

Advanced Mathematics (3.97/4)	Statistical Learning (3.98/4)
Numerical Algebra (3.81/4)	Introduction to Data Science (3.73/4)
Time Series Analysis (3.85/4)	Introduction to Computation (3.81/4)
Practice of Programming in C++ (3.81/4)	Data Structure and Algorithm (3.95/4)
Deep Learning: Algorithm and Application (3.77/4)	Network and Game Theory (3.98/4)
Parallel and Distributed Computing (3.85/4)	Visualization (3.95/4)