Yao Tong (Alice)

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EDUCATION

The University of Chicago, Master of Science in Statistics Candidate March 2018

- Awarded 25% Scholarship
- Relevant Coursework: Statistical Theory & Methods, Statistical Computing (R, Python, SQL), Machine Learning, Time Dependent Data, Big Data, Analysis of Financial Time Series, Design & Analysis of Experiment, Pattern Recognition, Generalized Linear Model

Peking Universit, Master of Science in Computational Physics July 2016

- Awarded Full Scholarship, **3.7** Major GPA
- Relevant Coursework: Statistical Physics, Quantum Mechanics, Computational Physics(Fortran, Linux)

Central China Normal University, Bachelor of Science in Physics July 2013

- Awarded Excellent Undergraduate, National Scholarship, **3.8** Major GPA, **3/362** Rank
- Relevant Coursework: Advanced Programming Language Design, Method of Mathematical Physics, Linear Algebra, Advanced Mathematics, Probability and Statistics

PROFESSIONAL EXPERIENCE

Mayinglong Pharmaceutical Group Co. Ltd, Intern, Internet Data Center Summer 2016

- Collected individual customer business data from company database and analyzed web traffic behavior
- Identified the significant trends by PCA and built a generalized linear regression model to analyze 5,266 individual customer data via R
- Obtained significant factors that influence the popularity of a company website and cooperated with Internet Data Center in writing a report for the company website

China Development Bank, Quantitative Analyst Intern, Planning Department Summer 2015

- Coordinated members from different departments to collect national policy on 34 industries such as aviation and airlines to estimate market size of each industry via MySQL
- Data mined 8.6 GB financial data, built a time series model and performed a hypothesis test based on bootstrap method, estimated corresponding reasonable national support funds of each area quantitatively

Peking University, Research Assistant, State Key Laboratory for Physics 2013-2016

- Analyzed 500000 data sets from the generation of chirped laser pulses via Fortran on Linux system
- Managed a large and complex database environment via R and Tecplot
- Published this work in Phys. Rev. A

Mathematical Contest in Modeling, Team Leader 2011-2012

- Built CCA model and concluded positive correlation between effective light area (R^2=0.82) and photosynthetic efficiency via Matlab and R
- Constructed grid resource allocation model, optimized utility function and provided a strategy that can be used in the future market

SKILLS AND PROJECTS

- Programming Skills: R, Fortran, MySQL, Python, Unix/Linux, Microsoft Office, LaTeX, Maple, MathType
- Statistical & Machine Learning Skills: Autoencoder, Neural Networks, Optimization, Bagging and Boosting, Classification and Regression Trees, Logistic Regression, Markov Chain Monte Carlo, Clustering
- Past Projects
    - Statistical Models for Gravitational Wave Detections
    - Early Stage Lung Cancer Diagnosis – A Data Analytics Approach

LEADSHIP AND ACTIVITIES

Team leader of Mathematical Contest in Modeling 2012

Computational Physics Salon, Peking University 2014-2016

- **Founder** of the 30-people computational Physics group which including members from Tsinghua University and hold salons each month, aimed to introduce the knowledge about how to build a model using physics and mathematics