

Siyu Song

5020 South Lake Shore Dr, Apt 709N | Chicago, IL 60615 | (312)973-6462 | siyusong@uchicago.edu

M.S. student in Statistics, with well-trained probability knowledge, statistical modeling methods and programming skills. Experienced in cutting-edge machine learning methods, especially in neural network. Also having cross-functional communication skills and teamwork spirit.

EDUCATION

The University of Chicago (Cumulative GPA, 3.73/4.0) Chicago, IL
MS in Statistics September 2015 - March 2017

Selected Coursework: Applied Linear Statistical Methods; Mathematical Computation I: Matrix Computation; Mathematical Computation IIB: Nonlinear Optimization; Bayesian Analysis and Principle of Statistics; Topics in Statistical Machine Learning; Generalized Linear Model; Introduction to Statistical Machine Learning; Non-parametric Inference; High-dimensional Statistic; Algorithm Design(coursera).

Peking University (Cumulative GPA, 84/100) Beijing, China
B.S. in Physics and B.S. in Psychology September 2011 - July 2015

Selected Coursework: Advanced Mathematics I&II; Linear Algebra; Methods for Mathematical Physics I&II; Prob and Stat; Introduction to Data Analysis; Psychological Statistics; Psychological Assessment.

TECHNICAL SKILLS

Programming Language: proficient in Python(numpy, scipy, Theano, Lasagne), R, MATLAB, MySQL; experienced in Spark, C, SAS, VBA, Office.

Modeling and Algorithm: Neural Network, Recommendation System, Linear Model, Generalized Linear Model, Decision Tree, Boosting and Bagging, SVM, Generative Model, Non-parametric Methods, Monte-Carlo Markov Chain, Nonlinear Optimization, Language Model, Topic Model, Social Network.

PROFESSIONAL EXPERIENCE

Douban | an SNS website concentrating in movies, books and music Beijing, China
Algorithm Engineering Intern June - September 2016

- Studied using Dpark distributed computing system(a Douban clone of Spark)
- Built a predictive model for advertisement recommendation on *Douban.com* website, using GBDT(XGBoost package in Python) to arrive at 78% AUC and Hierarchical Poisson Model to arrive at 68% AUC(~70% benchmark for this project), optimized the online advertising strategy.

China Merchants Bank | Largest non-state-owned commercial bank in China Shanghai, China
Data Mining Intern July - August 2014

- Forecasted daily customer service telephone traffic using linear regression in Matlab, improved daily average absolute error rate from 12%(initial tentative model) to 6%;
- Answered questions about the model and asked advises from customer service team at daily meetings;
- Analyzed impact of mobile app use on telephone traffic in a 3-member data team, this result interested the president of the bank.

RESEARCH EXPERIENCE

Department of Statistics, University of Chicago Chicago, USA
Research Assistant - Prof. Yali Amit September 2016 - March 2017

- Studied to implement neural networks in Lasagne and applied them on Mnist, Cifar10 datasets;
- Built an auto-encoder with spatial transformer layers to learn spatial transformation equivariance.

School of Physics, Peking University Beijing, China
Research Assistant - Prof. Zheyu Fang April 2013 - June 2015

- Produced independent graduate thesis in theoretical and experimental physics: The Numerical Simulation and Experiment Preparation of Fano-Resonance Between Double-Body Structure;
- Constructed microscope device; conducted numerical simulation on commercial platform;
- Contributed to journal publication (sixth co-author) in *Plasmonics* (2014)9:879-886.