Jinghan Yang

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Skills

Statistical modeling & data analysis	data mining	machine learning	classification	hypothesis testing	Monte Carlo simulation
	game theory	data visualization	regression	sensitivity analysis	linear programming
	time series	data cleaning	clustering	operations research	variable selection
Programming & software	Python	Java	MATLAB	R	
	SAS	SQL	Excel		
Soft skills	strong oral and written communication skills		fast learning and rapid adaptation		

Education

Candidate for Master of Science in Applied Mathematics, ***GPA: 3.8/4.0*** [May 2016]
Northeastern University, Boston, MA
Related Courses: Data Mining, Numerical Analysis, Mathematical Modeling

Bachelor of Science in Financial Mathematics, ***GPA: 3.8/4.0*** [July 2014]
Tianjin University of Finance and Economics, Tianjin, China
Honors First Class Scholarship-sophomore year (Top1/37) First Class Scholarship-junior year (Top1/37)
National Scholarship (Top 1/148) First prize in China Undergraduate Mathematics Contest in Modeling

Experience

Bank Direct Marketing Analysis using Data Mining Techniques, Northeastern Univ., Boston, MA [Sept. 2015 – Dec. 2015]

- Collected, cleaned, and transformed a large-scale dataset (Bank Marketing Data Set) using Python from UCI Machine Learning Repository.
- Applied and visualized PCA in R on the dataset to analyze and select bank client features, phone call features, and social and economic context features.
- Conducted statistical hypothesis testing, such as Chi-squared Test of independence for qualitative variables, to check the association between each predictor and the response.
- Built up binary classification models to identify the main characteristics that affect a success (the deposit subscribed by the client) in R, based on Machine Learning methods, such as Logistic Regression, Decision Tree and Support Vector Machines.

Research Assistant, Mclean Hospital, MRI, Belmont, MA [July, 2015]

- Built up ODEs models for series and parallel resistor, an inductor and a capacitor circuit, with AC source, for MRI machine.
- Solved ODE equations and plotted results in MATLAB.

Quantitative Analyst Intern, Sun Life Ever Bright Life Asset Management Company, Beijing [Jan. 2014-Apr. 2014]

- Built up Mathematical Models and applied Numerical Methods, such as Finite-difference Method solving Black-Scholes PDE and Binomial Tree Method, for Option Pricing using MATLAB.
- Conducted stock data screening and analysis, such as calculating financial ratios, using Excel.
- Accomplished company profile based on company and market research, and financial report, and analyzed the fundamental information of each firm to rate the investment risk.

Research Assistant, Complexity of Economic Process in Climate Change, China [Oct. 2013-May 2014]

- Developed a power penalty method to solve the free boundary problem and approximated the linear complementarity problem by nonlinear parabolic PDEs in two spatial dimensions.

Research Assistant, China's Market Distortion and True Gains form Trade, China [Mar. 2013 – June 2013]

- Collected almost 100 kinds of fruits and vegetables data in time series, from both open and closed source database, such as China yearbook of agricultural price survey.
- Ran regression model in different dimensions to analyze panel data.

Data Analyst, MassMutual Financial Group, Insurance Department, Hong Kong [Aug. 2012]

- Cooperated with sales and marketing departments to conduct customers, competitive products surveys.
- Adopted statistical analysis to determine pricing.