Xiao Wang

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Education

Cornell University **Ithaca, NY**
Master in Applied Statistics *August 2014 - Present*
- Relevant Courses: Bayesian Data Analysis, Optimization Modeling, Big Data Management, Econometrics
- Cumulative GPA: 4.20/4.30

Xiamen University **Xiamen, China**
Bachelor of Economics *September 2010 - June 2014*
- Cumulative GPA: 3.76/4.00, Major GPA: 3.77/4.00
- Graduated With Highest Distinction (5%), Excellent Graduation Thesis Award

Skills

- **Computer:** Python, Matlab, R, SQL, SAS, Latex, Github, Linux, Hadoop, Microsoft Office Suite
- **Certification:** SAS Advanced Programmer for SAS 9.0, CFA Level II Candidate

Relevant Experience

Optimization Modeling in Finance **Ithaca, NY**
Project Member *March 2015*
- Applied the Fama-French Five-Factor Model to select stocks from NASDAQ 100 with rolling estimation.
- Built an optimization model with embellished Markowtiz Model and VaR Model to construct and rebalance portfolios for different periods; back-tested the trading strategy during both contraction period and expansion period.
- Analyzed efficiency of the trading strategy by comparing the performances with portfolios constructed by simulation method.

Oracle Database and SAS High Performance Computing **Ithaca, NY**
Project Member *December 2014*
- Created 5 relational Database with Oracle Database and SQL developer for large datasets (13500+ observations).
- Manipulated and queried database in RDBMS using aggregate function to solve business problems.
- Connected SAS with Oracle database and did Correlation test and Multivariate Regression Analysis; visualized the results and analysis in SAS.

The Impacts of Global Oil Price Shocks on China's Economy **Xiamen, China**
Research Assistant (Supported by National Social Science Foundation of China) *March 2013 - July 2014*
- Researched on the global crude oil markets and four most important commodity markets including Agricultural, Metal, Petrochemicals and Oils and Fats markets in China; published a research paper on an academic journal **Energy Policy** .
- Built ARMA-GARCH/EGARCH models to research on volatility clustering phenomenon in five commodity markets; incorporated Autoregressive Jump Intensity (ARJI) model to capture the price jumps (extreme price movement) in global oil market; analyzed the impacts of oil price shocks on China's fundamental commodity markets.
- Wrote MATLAB codes for cleaning large trading datasets; applied Maximum Likelihood Estimation(MLE) methods to estimate econometric models with R.

Option Pricing with Machine Learning **Xiamen, China**
Researcher (Supported by School of Economics) *August 2013 - December 2013*
- Divided option pricing into three parts: C_{BS} as the pricing in an ideal world with the adjusted Black-Scholes formula, C_{AR} as the pricing deviation with a time series trend, and C_{ANN} is for the deviation immeasurable.
- Applied autoregressive-moving-average (ARMA) model in time series analysis to price the C_{AR} part and composed a vector of R^7 as information inputted into artificial neural network (ANN) to price the C_{ANN} part.
- Conducted empirical study of the pricing model based on the daily call option close prices of FTSE 100 index options, with 19833 samples from 04-01-2008 to 06-04-2008.

Publications

- Xiao Wang, Chuanguo Zhang. The impacts of global oil price shcoks on China's fundamental industries. *Energy Policy* 68 (2014): 394-402. (Indexed by SCI & SSCI, Impact factor: 2.783)
- Kai Liu, Xiao Wang. A Pragmatical Option Pricing Method Combining Black-Scholes Formula, Time Series Analysis and Artificial Neural Network. *Computational Intelligence and Security (CIS), 2013 Ninth International Conference on.* IEEE 2013. (Indexed by EI)

Interest

- **Interest:** Data visualization and data science enthusiast, enjoying cooking