CHAO ZHU

peterchaoz93@gmail.com • www.linkedin.com/in/chaozhu93 • (201) 208-9780

Education

**Baruch College, City University of New York** 09/15

Master of Science in Financial Engineering expected December, 2016 –Present

**Peking University** 09/11

Bachelor of Science; Bachelor of Arts –07/15 Double Major in Applied Mathematics and Economics

Financial Modeling Skills

* Linear and logistic regression analysis, time series analysis: ARMA, GARCH, EWMA, ECM models
* Machine learning techniques, Decision Tree, K-means, Neural Network, and Support Vector Machine
* Dynamic affine yield term structure modeling using Kalman Filter QML
* Stochastic calculus: Ito’s formula, Kolmogorov equations, change of numeraire, Feynman-Kac Theorem

Programming and Computing Skills

* + - * C/C++, MATLAB, R
      * Python, SAS, VBA, SQL, SPSS, Unix Shell, MS Office, Q, spark

Financial Experience

**Mkp Capital Management, LLC.**, New York, US 06/16

*Credit Analytics*  –Present

* Built a portfolio optimization app based on Bayesian Network for stress scenario and utility function

selection, considering transaction cost and finance cost

**Mkp Capital Management, LLC.**, New York, US 01/16

*Quantitative Analyst, Risk Analysis and Portfolio Management Department*  –06/16

* Risk analysis based on historical transaction data, e.g. calculation of P&L, sharp ratio, hit rate and max

drawdown

* Maintained weekly risk surveillance report for credit fund and opportunity fund, e.g. scenario maximum

drawdown, trading strategy risk exposure

* Used Bayesian Network model to analyze the risk exposure of Brexit and its impact to global market
* Back tested a trading strategy using VIX index and S&P500 index based on implied volatility

**China Credit Rating Co., Ltd**, Beijing, China 03/15

*Quantitative Analyst, Quantitative Research Department* –06/15

* Researched reduced form and structure models to assess the risk of asset securitization
* Estimated the affine yield term structure for the Chinese national debt market by Kalman Filter QML

**Raise Tech Co., Ltd**, Beijing, China08/14

*Quantitative Analyst, Model Development Department* –10/14

* Investigated indices methodologies, built trading strategies by trend-following indices CSI300, CNINDEX

and back tested with historical data

**Bank of China**, Shanghai, China06/14

*Quantitative Summer Analyst, Personal Wealth Management*  –08/14

* Used decision tree algorithms to model client turnover

Awards

* Academic Excellence Award, 2012
* Grand Prize, 21st Challenge Cup, Peking University, 2013

CERTIFICATION

* + - * Bloomberg certified in Equities, Foreign Exchange, Fixed Income and Commodities 08/15

Project Experience

**BARUCH COLLEGE, CITY UNIVERSITY OF NEW YORK,** New York, US 01/16

*Course Projects* –05/16

* Algorithm trading project: Alpha factor strategy based on style rotation and smart beta to optimize signal weights
* Machine Learning project: Using genetic algorithm to signal (feature) construction in high frequency

trading, compared with different supervised learning models

* Big Data project: used C++ to built a real-time data scrubber and analyzer on HPC cluster; wrote VWAP model

with Q; used pyspark to build a stock return prediction model based on social media information on Amazon AWS

Language

Mandarin (native speaker)