Christine Xia Zhang

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EDUCATION

Columbia University **New York, USA**
Master in Mathematics of Finance Sep 2016 -- Expected Feb 2018
Coursework: Hedge Fund Strategies/Time Series Modeling(R)/Stochastics/Risk Management
University of International Business and Economics **Beijing, China**
Bachelor of Economics in Finance (Quant Track) GPA 3.9/4.0 Sep 2012 -- July 2016
Honors: Guanghua Educational Scholarship (Top 3%) & Outstanding Graduate in Beijing
Coursework: C++/Applied Statistics/Econometrics/Fixed Income/ODE/Real Analysis

PROFESSIONAL EXPERIENCE

Mommsen Global LLC New York, USA
Python Engineer | Equity Algorithm Team Jan 2017 – May 2017
- Created web crawler to fetch real time stock tick data via Google and Yahoo Finance for daily position computation and conducted tick quote data analysis
- Built blocks for NewsEdge strategy e.g. key word searching in daily news headlines to identify tradable events

DG Futures Company Beijing, China
Data Analyst Intern | Futures Trading Floor March 2016 – June 2016
- Decomposed the hourly data using Empirical Mode Decomposition (EMD) and built ARMA model for each IMF (intrinsic mode function) with R
- Back-tested Bollinger Band strategy with Kalman Filter to update 20-period mean dynamically
- Conducted trading indicator re-computation (e.g. volume weighted index PE) and data visualization with R and built up database with interface to Wind Financial data Terminal

RX Securities Company Limited Beijing, China
Quant Research Intern | Quant Trading Team July 2015 -- Oct 2015
- Back-tested pair-trading strategies based on stochastic spread model (OU process) and cointegration (ADF test, Engle and Granger test) with Matlab
- Monitored arbitrage opportunities in structured funds and between ETF and the index futures via VBA with interface to Wind Financial data Terminal

CITIC Securities Company Limited Beijing, China
Analyst Intern | Fixed Income Team Oct 2014 -- June 2015
- Compiled time-series data to build regression models with R demonstrating the overflow effects of the appreciation of USD on Asian stock and commodity markets
- Analyzed monetary policies, global macro economy, Treasury-bond interest rate curves and the impact of the US Federal Reserve and European Central Bank decisions
- Built database updating dynamically with interface to Bloomberg

RESEARCH EXPERIENCE

Trading Strategy Projects (Python):
•NR4 strategy for G7 currencies with hourly data: Annual return of 21%, cumulative return of 8% with leverage
•Swap Spreads Arbitrage strategy
•Crack Spreads with crude oil futures, gasoline and heating oil futures Strategy
Graduation thesis: Stock Portfolio Optimization based on ant colony algorithm (ACA)
Risk Project: a risk calculation system (Matlab/R/VBA)
• Can both calibrate to historical data and take parameters as input.
• Take an arbitrary portfolio data as input and do risk calculations: Monte Carlo, historical, and parametric VaR.
• Backtest the computed VaRs against history.
Machine Learning Project: Face Recognition based on Support Vector Machine (SVM)(Python)
• Adopted PCA to reduce dimensionality of features vectors
Honorable Mention, Mathematical Contest in Modeling（MCM）(Matlab)
• Developed cellular automaton (CA) for simulating the spread of the Ebola in Africa to pinpoint medical aid stations

QUALIFICATIONS AND INTERESTS

Skills: Python, C++, R, SAS, SQL, Matlab, Excel/VBA, ACCESS, Bloomberg, CFA level II candidate, FRM part I
Interests: Piano, Singing, Yoga, Jogging, Chess