# SHUYUE FU

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### **EDUCATION**

# University of Illinois at Urbana-Champaign

Urbana, IL

Candidate for Master of Science in Financial Engineering

Aug 2015 – Dec 2016

Cumulative GPA: 3.91/4.0

Relevant Coursework: Financial Computing in C++, Stochastic Calculus, Numerical Methods in Finance

Optimization in Finance, Machine Learning, Risk Measures and Management

# **Shanghai University of Finance and Economics**

Shanghai, China

Bachelor of Science in Financial Engineering

Aug 2011 – Jun 2015

Cumulative GPA: 3.65/4.0

Achievements & honors: Third Class Scholarship; Vice President of English Salon Club; Excellent Student Relevant Coursework: Mathematical Analysis, Programming in C++, Probability Theory, Stochastic Processes

### **EXPERIENCE**

# Chicago Mercantile Exchange

Chicago, IL

Practicum Student

Jan 2016 -NOW

- Rebuild limited order book into an easy-processed structure and carried out trade matching using python
- Identified and analyzed the hidden order placement within the limited order book (iceberg orders)
- Modeled high-frequency limited order book dynamics with machine learning algorithms (SVM, ANN and Logistic Regression) using python and compared various algorithm with decision tree algorithm
- Make weekly reports and presentations to the mentor in CME

# Industrial Bank Co., Ltd

Shanghai, China

Quantitative Intern in bond trading team

*Dec 2014 – May 2015* 

- Coded a VBA program to identify arbitrage opportunities on split funds (a structured product in China), Achieved an 82% winning rate on historical data through back testing;
- Assisted traders directly to revise team's risk control program and term-structure program
- Designed a bond valuation program to track daily returns and gains & losses of team's bond portfolio
- Performed initial due diligence with the team and made credit risk reports on more than 30 bonds

### **Howbuy Investment Service Company**

Shanghai, China

Summer Intern

Jul 2013 - Oct 2013

- Conducted quantitative and qualitative analysis on mutual funds to identify their potential performance
- Calculated key performance index of funds like maximum drawdown, rolling performance using Matlab
- Drafted pitch books using PowerPoint for road shows of new funds and participated in the presentation

### **QUANTITAITVE PROJECT**

## Pricing European/American Options and Exotic Options

Urbana, IL

Course project of Financial Computing implemented with C++

*Aug* 2015 – *Dec* 2015

- Implemented Monte-Carlo simulation, dynamic programming, binomial model and Fast Fourier Transform technique for option pricing; Utilized memoization technique to speed up the C++ program
- Optimized binomial model for American-Asian option with Hull-White Interpolation Algorithm

### **China Undergraduate Mathematical Contest in Modeling**

Shanghai, China

Team leader

Sep 2013 – Oct 2013

- Won Third Prize nationwide and First Prize in Shanghai. (Top 8% nationwide)
- Applied Monte-Carlo Simulation and built a model based on Poisson Process to optimize the traffic system.

# ADDITIONAL INFORMATION

Language: English (Proficient), Chinese (Native)

Computer: C++; VBA; Python; Matlab; R; SQL; Access; Bloomberg; Wind

Certifications: FRM Level I; CFA Level II candidate