**Chao Wu**

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**EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**NEW YORK UNIVERSITY**– New York, NY, US

MS in Financial Engineering, 2013 –2015 June GPA 3.5/4.0

**Coursework:** Numerical & Simulation Techniques in Finance, Dynamic Assets and Option Pricing, Algorithmic Trading, Financial Computation, Financial Risk Management and Asset Pricing

**UNIVERSITY OF WATERLOO** – Waterloo, ON, CA Bachelor of Science in Mathematical Physics, 2010 – 2012

**Relevant Coursework**: Linear Algebra, Probability, Statistics, ODE, PDE, Optimization, Complex analysis

**CHINA UNIVERSITY OF GEOSCIENCES (BEIJING)** – Beijng, China Majored in Geology, 2008 – 2010

**PROFESSIONAL EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**--Summer analyst** at **Morgan Stanley Huaxin Fund Management Company Limited**, Department of Financial Engineering and Risk Management, Shenzhen, China (2013.5-2013.8)

Worked with portfolio managers to analyze financial and non-financial datasets, identifying patterns and trends of stock prices by using linear regression models. Then perform analysis and compare results with estimation.

Analyzes and classifies risks as to frequency and potential severity, and measures financial impact of risk on company. Performed risk analysis and presented detailed reports to the senior management.

**--** **Summer analyst** at **China Galaxy Securities Co. Ltd,** Department of Investment Banking, Beijing, China (2012.5-2012.7)

Worked with the senior analyst to designed integrated financial models to forecast financial growth, analyze effects of M&A activity.

Analyses included discounted cash flow, company comparables, and internal rate of return and weighted average cost of capital.

**PROJECT EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluate the impact of earning report on stock price( C++ )**

--Sort the stocks from S&P 500 into 3 groups according to their earning releases, use liburl to retrieve historical price data from Yahoo Finance.

--Create STL containers to manage the stock prices and earning information

--Implement functions to do calculation of abnormal returns, average daily abnormal returns and cumulative abnormal returns for each group, then give the final conclusion.

**Binomial Option Pricing Model( Matlab )**

--By using Matlab, implement European and American binomial option pricing models in terms of given inputs. Output Greeks for corresponding options, also do the calculation of 99% 1-year VaR for stocks and corresponding options. Analyze the final result.

**Asian Option Pricing based on Monte Carlo simulation( C++ )**

--By applying Monte Carlo simulation and Black Scholes formula, implement an Asian option pricing model based on C++.

--Incorporate the control variance reduction technique to do further analysis

**COMPUTER SKILLS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Programming languages**: Proficient in C++, SQL; Basic in SAS, VBA

**Other software**: Matlab, R, Excel

**OTHERS:** Baruch MFE C++ Programming for Financial Engineering Online Certificate,

CFA Level 1 passed, Bloomberg Certification