

# JIAWEI (NATHAN) WEI

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## EDUCATION

**Columbia University**, Graduate School of Arts and Sciences, New York, NY

*Master of Arts in Mathematics of Finance* (GRE V160/170, Q170/170) *Expected Feb 2018*

- Courses: Introduction to the Mathematics of Finance, Statistical Inference/Time-Series Modeling, Stochastic Processes-Applications, Hedge Fund Strategies & Risk, Advanced Programming

**Sun Yat-Sen University**, School of Mathematics & Computational Science; Lingnan College, Guangzhou, China

*Bachelor of Science in Applied Mathematics & Finance* (GPA: 3.7/4.0) *Sep 2012–Jul 2016*

- Honors: Second Prize Scholarship of SYSU; Third Prize in Mathematical Contest in Modeling (2014; 2015)
- Relevant Coursework: Stochastic Processes, Mathematical Analysis, Linear Algebra, Probability, Differential Equations, MATLAB, C/C++, Data Structure, Financial Engineering, Micro/Macro-economics

**University of California, Berkeley**, English Department, Berkeley, CA

*Summer Program, English as Second Language* (GPA: 4.0/4.0) *Jul 2014–Aug 2014*

- Courses: Academic Research; English Language Studies

## PROFESSIONAL EXPERIENCE

**Hermes Capital Advisors, LLC**, New York, NY

*Fall Intern, Quantitative Trading Researcher* *Oct 2016–Nov 2016*

- Strategy replication: developed statistical arbitrage trading strategies (Python-based); constructed trading portfolios using Principle Component Regression and sector ETF methods; analyzed strategy performance by tracking trading statistics (packages: numpy, pandas, datetime, mysql.connector, statsmodels, iqfeed\_client)

**Guangdong Bond Capital Management Ltd**, Guangzhou, China

*Winter Intern, Quantitative Research Analyst* *Nov 2015–Feb 2016*

- Implemented a pair trading strategy with annualized return of 21.46% and Sharpe Ratio of 1.03 with Python; used machine learning algorithm (cluster analysis) to screen stock pairs; used cointegration model and Augmented Dickey-Fuller test to test tradability; adopted Kalman Filter Model to dynamically update model parameters (packages: numpy, pandas, scipy, matplotlib, statsmodels, urllib2, sklearn, pykalman)
- Transferred up-to-date daily transaction data from Wind Financial Terminal to SQL Server and calculated stock return fluctuation, daily variation, turnover rate, etc. using R (packages: RDOBC, WindR, dplyr, quantmod)
- Achieved in transformation of candlestick charts to equal volume-interval for obtaining clearer views of price movements; programmed position-holding costs function provided by Tongdaxin Financial Terminal into R code

**Great Wall Securities Co., Ltd Guangzhou Branch**, Guangzhou, China

*Summer Intern, Investment Banking Department* *Jul 2015–Sep 2015*

- Participated in five enterprises' public listing on National Equities Exchange and Quotations (NEEQ) with business trips and supported three enterprises in directional add-issuance
- Conducted due diligence, audited financial statements, and drafted public transfer instructions

## ACADEMIC PROJECTS

**Optimal Strategies for Parties of Equity-Based Crowdfunding**, Guangzhou, China

*Advisor: Yan Zeng, Lingnan College, Sun Yat-sen University* *Jul 2015–Nov 2015*

- Built mathematical model for the investment and financing sides of equity-based crowdfunding with Karush-Kuhn-Tucker conditions and Lagrange multipliers
- Deduced optimal solutions in closed-form and visualized relations between parameters using MATLAB
- Provided numerical examples and interpreted research results from practical economic perspectives

## LEADERSHIP

**Student Union of School of Math & Comp Science**, Guangzhou, China

*Liaison Department, President* *Sep 2013–Jun 2014*

- Led department to raise fund for student activities held by the Student Union (approximately 6,000 USD)
- Organized and managed the first 'Noble Metal Virtual Investment Competition' in Sun Yat-sen University

## SKILLS & INTERESTS

<b>Language</b>	Native Mandarin and Cantonese, elementary Spanish
<b>Computer Software</b>	MS Office: Word, Excel, PowerPoint; basic in SAS, Prezi, Bloomberg, and Adobe Photoshop
<b>Programming Skills</b>	Mastery of C/C++, Python, MATLAB, R, SQL, and UNIX
<b>Interests</b>	Machine learning, e-business, mobile Internet, basketball, and soccer