

# CHEN DI

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## EDUCATION

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### Columbia University

New York, NY

*M.A. in Mathematics of Finance*

Expected Dec 2017

- Math & Stats: Time Series Analysis, Stochastic Calculus, Brownian Motion, Ito's Lemma
- Finance: Financial Derivatives, Portfolio Optimization, Risk Management
- Programming: VBA, Monte Carlo Simulation, K-mean Clustering

### Xiamen University

Xiamen, China

*B.Sc. in Applied Mathematics, Math GPA: 3.78*

Jun 2016

- Coursework: Operations Research, Partial Differential Equation, Financial Accounting, Statistical Inference
- Member of National Top-notch Students Scientific Development Pilot Program
- Graduate with Honors (Top 5%)

## ACADEMIC PROJECTS

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### Valuing Autocallable Structured Product

New York, NY

- Priced exotic options and autocallable structured products with up to 2 underlyings using Monte Carlo simulation and Alternating Direction Implicit finite difference method in VBA and C++
- Contributed in booking intraday hedging positions and internal trades
- Performed backtesting on Delta and Vega hedging strategies, and evaluated the pin risks and knock-in scenarios for OTC products linked to CSI 300 and SSE 50 indices

### Time Series Project

New York, NY

- Predicted the direction of next day S&P500 index using ARIMA and GARCH model and compared the method performances within neural network and LOESS regression
- Optimized the open threshold with respect to Sharpe ratio, carried out both in-sample parameter optimization and out-of-sample back testing in R

## PROFESSIONAL EXPERIENCE

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### HUATAI Securities

Changzhou, China

*Investment Research Intern*

Jul 2015 - Sep 2015

- Constructed a multi-factor model for stock selection
- Researched sector rotation effects of the stock market by macroeconomic volatility
- Generated a beta hedging ideas for stock portfolio through CSI 300 stock index futures

### China Minsheng Investment

Shanghai, China

*Research Intern*

May 2015 - Jul 2015

- Developed an arbitrage strategy of CSI 300 stock index futures, determined the boundary of no-arbitrage interval under the circumstance of margin trading and replicated the spot index via ETF
- Minimized the tracking error between spot portfolio and underlying index by adjusting weight

## LEADERSHIP

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### Xiamen University Student Union

Xiamen, China

*Academic Department Minister*

Jun 2013-Jun 2015

- Chaired the in weekly assembly; led the writing of plan books of all activities
- Coordinated between other departments in presenting annual forum, which targeted all students on campus interested in application for MFE/MAFN programs or investment bank job opportunities
- Marketed the forum which received over \$5,000 sponsorship and scholarship from EIC Education

## COMPUTER SKILLS

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*Programming Languages*

R, C, MATLAB, VBA, SQL, HTML, Python (basic)

*Other Software*

Mathematica, Minitab, L<sup>A</sup>T<sub>E</sub>X, Bloomberg and Microsoft Office