

## JIAQIAN(LAREINA) ZHANG

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### EDUCATION

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#### NEW YORK UNIVERSITY

New York, NY

#### The Courant Institute of Mathematical Sciences

#### M.S. in Mathematics in Finance (expected Dec 2022)

- **Coursework:** Data-driven models, cross-validation, arbitrage-trading, CAPM, Black-Scholes, stochastic process, VaR, machine learning, Monte Carlo simulation, SVD & PCA, Time Series Analysis, Ito Lemma, risk and portfolio management, test-driven development

#### THE OHIO STATE UNIVERSITY

Columbus, OH

#### B.S. in Mathematics in Finance (Sep 2016 - Dec 2019)

- **Coursework:** applied mathematics including calculus, differential equations, probability, and statistics, linear algebra and computer science including JAVA and MATLAB
- **Senior Thesis:** ODEs, PDEs, interest rate derivatives, Black-Scholes Model, European/American options, binomial trees model, evaluations of futures and other derivatives
- **Awards:** Summa Cum Laude, Dean's List, GPA: 3.94 (Top 1%)

### EXPERIENCE

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#### GUOTAI JUNAN SECURITIES

Shanghai, China

#### *Investment Analyst Intern, Fixed Income Department Sector* (Mar 2021 - Jun 2021)

- Assisted the investment team in crafting due diligence reports to make investments in projects about subordinated debentures and ABS including RMBS, REITs, CMBS, CLO and non-performing loan, such as WeBank Micro Industry loan, Meituan Micro loan and Ping An Microcar loan
- Applied WIND to collect project materials, evaluated investment risk by analyzing the dynamic and static pools, repayment scenarios, predicted IRR in the return model, constructed cash flow models and simulated scenario default rate (SDR) in stress test

#### AHCOF INDUSTRIAL DEVELOPMENT CO., LTD (AUM: \$32 Billion )

Hefei, China

#### *Sales & Trading Department Intern in AHCOF FUTURES CO., LTD* (May 2019 - Aug 2019)

- Conducted commercial and stock-index futures selection, formulated and evaluated trading derivatives strategy hypotheses through statistical backtesting
- Constructed futures valuation model and return analysis based on daily delivery prices
- Determined the term structure of forward prices of commodities futures including iron ore, crude oil and soybeans by collecting their volatility information on the contango market

#### IFLYTEK CO., LTD

Hefei, China

#### *Product R&D Engineer Intern* (May 2018 - Aug 2018)

- Conducted a product of ringtone development called RingDiyClient that allows the clients to change their ringtone without version or system limitations on their phones
- Analyzed statistical data by processing system artificial intelligence speech and computer vision, and researched on machine learning
- Contributed to model-view-controller structure by compiling data query-and-summary function in Java, detected and fixed the bugs, adopted the test-driven development (TDD)

### PROJECT

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#### THE OHIO STATE UNIVERSITY

Columbus, OH

#### *MCM (Mathematical Contest in Modeling), ICM (Interdisciplinary Contest in Modeling)* (Oct 2019)

- Led a group to investigate a game called Buckminion from two choices and simulated an optimized algorithm
- Implemented a model containing over 1,000 assumptions in MATLAB and Python, conducted robustness tests, extracted useful data, and implemented plausible regression

### COMPUTATIONAL SKILLS/OTHER

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**Programming Languages:** Java, Python, MATLAB, C++, SQL

**Languages:** Mandarin (native), English (fluent)

**Affiliations/Certifications:** CFA level II candidate