# **Chuanyue NIE**

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### **EDUCATION**

#### University of Southern California, Viterbi School of Engineering

Los Angeles, California 08/2023-Present

Major: Financial Engineering

**GPA:** 3.91/4.00

Coursework: Machine Learning, Stochastic Processes for Financial Engineering, Mathematics and Tools for Financial Engineering

### Nankai University, Business School

Tianjin, China

Major: International Accounting and Finance (Joint program with CPA Canada)

09/2019-06/2023

**GPA:** 90.41/100, 3.82/4.00 (WES: 3.87/4.00)

Coursework: Linear Algebra, Probability and Statistics, Field Theory and Infinite Series, Multivariable Calculus, Database Technology and Application, Securities Market and Investment, International Finance, Financial Accounting, Monetary Banking, Public Finance

Honors: National Scholarship (Top 2%), Academic Excellence Scholarship (Top 10%), Student Service Scholarship (Top 2%)

#### PROFESSIONAL EXPERIENCES

# MiraclePlus (formerly Y Combinator China), Investment Intern

03/2023-07/2023

- Led due diligence for 5 investment projects, conducting over 20 interviews and calls to inform investment decisions.
- Sourced potential investment opportunities through various channels, resulted in 20+ project applications from 6 industries.
- Managed an acceleration program for 15 robotics startups, achieving a 96% Net Promoter Score, by facilitating their growth and connecting them with essential resources for finding Product Market Fit (PMF).
- Screened 300+ investors and supported 60 startups, enhancing their final pitch presentations and matching them with vital resources.

# CITIC Securities Company Limited, Investment Banking Division, ABS undertaking Intern

03/2022-06/2022

- Analyzed financial statements for due diligence and assisted in crafting over 50 documents for 7 ABS and 3 ABN projects, participating in the issuance of 5 billion RMB in AAA securities.
- Compiled a comprehensive ABS Market Analysis Report using the Wind database, focusing on coupon rates, bond scales, SPV structures, and policy guidance; analyzed over 2000 data points through Python and Excel PivotTables for in-depth insights.
- Prepared interview checklist and materials for 4 ABS projects, drafting 5 interview meeting minutes and 3 roadshow materials.

## Zheshang Securities Co., Ltd., Investment Banking Division, IPO Intern

01/2022-03/2022

- Got involved in research and due diligence for a new energy charging company's IPO, sorting out basic information, completing equity penetration, conciliating and reviewing financial data, and drafting financial statements analysis.
- Created comprehensive interview frameworks and developed a questionnaire for end-user and supplier with 27 questions.

#### CITIC Securities Company Limited, Research Department, Fixed Income Group Intern

10/2021-01/2022

- Conducted 3 CPI-PPI analysis monthly reports and 1 Inflation Analysis report using Python and Wind, providing strategic insights into inflation trends and their industry impacts.
- Delivered 22 macroeconomic event analyses, focusing on bond market implications, to guide client investment strategies.
- · Developed predictive models for bond issuance and maturity trends, while analyzing investment strategies for government bonds.

#### LehmanBrown Lyhua CPA Firm, Professional Services Department, Audit Intern

07/2021-09/2021

- Partnered with senior managers to audit financial statements, completed the Income Audit Draft for 3 companies.
- Conducted sampling work and expense analysis, checked cash flow and deposit journal, reviewed bank reconciliation statements.

#### **PROJECTS**

# LSTM Model in Algorithmic Investment, Python

02/2024-03/2024

- Led a quantitative trading project with a focus on Long Short-Term Memory (LSTM) networks to analyze asset valuations.
- Generated buy/sell signals based on LSTM forecasts, creating profitable equity lines through algorithmic investment strategies.
- Optimized LSTM network configurations, experimenting with multiple layers, dropout rates, regularization strengths, and optimizer choices to enhance model performance in time series forecasting.

# Pairs Trading Strategy for U.S. ETFs, Python

12/2023-02/2024

- Developed pairs trading strategies for U.S. ETFs, including collecting, storing, and analyzing ETF data with Python and SQLite.
- Filtered ETF pairs by dollar volume and applied the Johansen test to identify ETF pairs with significant cointegration.
- Engineered dynamic hedge ratios based on historical price relationships, employing the Johansen cointegration test and Bollinger Bands to signal trading entries and exits.
- Built a portfolio of top 5 performing pairs out of 702, achieving a 13.63% annual return, a 1.06 Sharpe ratio, and a 0.80 Calmar ratio.

#### SKILLS

Technical: Python, R, STATA, ACCESS, Wind, CSMAR, Excel PivotTable, Microsoft Office Suite