Yiwen Tang

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🎓 Education

Nanjing University, Nanjing, China   2023 – Present
Bachelor of Science in Physics (Elite Program), expected July 2027

Guangzhou No.2 High School, Guangzhou, Guangdong   2020 – 2023
High School Diploma

GPA   4.37/5
Rank (Elite Program)   5/31

👥 Projects and Research

IMC Global Trading Challenge   April 2025

Quantitative Researcher & Developer   Team: Granite Flow

- Designed high-performance trading infrastructure in a memory-constrained environment, implementing efficient data caching, feature engineering, and order slicing modules for real-time deployment
- Built implied volatility surfaces for options and executed volatility arbitrage strategies using base IV features
- Adapted trading strategies to dynamic market regimes, enabling low drawdowns during high-volatility periods
- Ranked **1st in Hong Kong region, 2nd in China** among over 4,000 global teams

3D Structure of Solar Eruptions (Undergraduate Research Program)   May 2024 – Present

Principal Investigator   Advisor: Prof. Yang Guo

- Analyzed 3D coronal velocity fields using CHASE satellite observations, integrating new instrument data with traditional methods
- Applied MPI-AMRVAC 3.0 with a novel magnetic friction approach to improve initial magnetic field modeling
- Conducted high-resolution MHD simulations on HPC systems to reproduce flux rope eruption phenomena

♡ Honors & Awards

First Prize (Top 36), National High School Physics Olympiad (Guangdong Province)   Sept. 2022
First Prize, Fundamental Science Scholarship, Nanjing University   Nov. 2024
Third Prize, People's Scholarship   Nov. 2024
Third Prize & Best Poster Award, Nanjing University Creative Physics Lab Competition   Dec. 2023

⚙ Skills

- Programming: Python (proficient)
- Data Processing & Visualization: pandas, NumPy, matplotlib, seaborn
- Quant Frameworks: freqtrade
- Machine Learning: PyTorch; experienced in CNN, LSTM, and hyperparameter optimization
- Trading System Engineering: feature engineering via sliding window, signal alignment, simplified backtesting system design

ℹ Additional Information

- Zhihu: https://www.zhihu.com/people/ivantang-89
- GitHub: https://github.com/Ivan-Tang
- Languages: English (TOEFL 105), Cantonese (native)