



## Tianwei GAO

Mobile: (86) 13263131611  
Email: twgao.24@saif.sjtu.edu.cn



Shanghai Advanced  
Institute of Finance  
上海高级金融学院

### EDUCATION

**Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University** Sep.2024 - Jun.2026  
Candidate for Master of Finance (FinTech Track)  
GPA: /, Ranking: /  
Shanghai

**School of Mathematical Sciences, Peking University** Sep.2021 - Jun.2024  
Bachelor of Science, major in Mathematics and Applied Mathematics  
Beijing  
**Academic Performance:** GPA: 3.616/4, Ranking: 61/128  
**Selected Coursework:** Mathematical analysis(I-III avg.) 92, Theory of Functions of complex variables 93, Functions of real variables 98, Abstract algebra 99, Differentiable manifolds and topology(H) 93, Mathematical methods of classical mechanics 99, Algebra II (commutative algebra) 99, Groups and representations 92

**School of Earth and Space Science, Peking University** Sep.2019 - Jun.2021  
Bachelor of Science, major in Mathematics and Applied Mathematics  
Beijing  
GPA: --, Ranking: --

### EXPERIENCE

**Shanghai Liangpai Investment Management Co., Ltd** July.2024 - Nov.2024  
Shanghai  
**Intern, Quantitative Research Team**

- Developed 10 alpha based on daily alternative data using time series analysis method, each alpha can obtain Sharpe ratio  $>1$  in CSI 300 stock pool and Sharpe ratio larger or close to 3 in larger universe including CSI 500 stock pool and total A-shares within the backtesting period (2018-2022).
- The combination of signals passed out-sample and correlation test and were added into simulating portfolio combination.

**Xuanyuan Investment Management (Guangdong) Co., Ltd** Nov.2023 - Mar.2024  
Beijing  
**Intern, Quantitative Research Team**

- Developed a strategy for rollover of stock index futures using random forests. The strategy exploited features involving price sequence and daily buy-sell information. Comparing to the basis strategy, in 2022-2023 (test samples), it recognized trading signals in 75% of total test samples, and achieved a 68% win rate with a 2.28 odds (average profit-and-loss ratio)

### RESEARCH / PROJECT

**The Construction of Skorohod Integral and its Application (Bachelor Thesis)** Nov.2023 - May.2024

#### Student

- Reviewed Skorohod's original paper on Skorohod integral and documented some examples and applications in stochastic analysis, also show that it is equivalent to the formulation based on Malliavin calculus.
- Gave new proofs on some propositions stated in Skorohod's original paper.

**Applications of Path Integral Simulation in Statistics** May.2023 - Sep.2023

#### Student

Remote

- Documented Toshihiro Yamada's work on weak approximation with Feynman path integral approach and related articles on Malliavin calculus that paved the way for this method, and a Monte-Carlo algorithm based on these results that improves the convergence rate largely for some specific SDEs.

**3+X Undergraduate Seminar** Sep.2021 - Mar.2023

#### Student

Beijing

- Gave reports on the following reading seminars organized by School of Mathematical Science:
- Formulation of rigid space (Theme: Rigid Geometry, organized by Beijing International Center for Mathematical Research)
- Alexander polynomial and its calculation (Theme: Low Dimensional Topology)
- Spectral sequence and homotopy groups of spheres (Theme: Algebraic Topology)
- Group Schemes (Theme: Abelian Varieties)

### HONORS / SCHOLARSHIPS

- 34th Chinese Mathematical Olympiad(Third Prize) Nov.2018
- Chinese High School Mathematics League(First Prize, rank 4 in Beijing) Oct.2018
- Grade 99 Scholarship (School of Mathematical Science, Peking University) Oct.2022

### ADDITIONAL INFORMATION

- Skill: Python, C++, Machine Learning, Data Structure and Algorithm
- Language: CET-6 (612/710)
- Interest: I enjoy playing football and have long served as center-back in my team, I enjoy directing the backfield defense and assisting in the frontfield attack.