# Yuhang Huang

Email: yuhanghuang@sjtu.edu.cn Tel: (+86) 13967796885

### **EDUCATION**

### Shanghai Jiao Tong University

Shanghai, China

Bachelor of Statistics (GPA: 3.7, Ranked No. 3/18)

June 2025 (expected)

**Major courses:** Probability Theory (A), Mathematical Analysis (A+), Linear Algebra (A), Stochastic Processes (A), Scientific Computing (A+), Statistical Software and Algorithms (A+), Data Structures (A+), Complex Analysis (A+)

### PROFESSIONAL EXPERIENCE

### **Everbright Securities**

Shanghai, China

Research Analyst Intern, Metals Team

Sep. 2023 - Nov. 2023

- Specialized in the powder metallurgy and smart manufacturing sectors, responsible for data collection and analysis of prominent companies, and contributed to writing weekly reports that examine industry patterns
- Served as a team delegate at various powder metallurgy academic conferences, engaging in detailed studies of the industry chain and writing extensive meeting minutes exceeding 50,000 words
- Collaborated in producing a comprehensive evaluation report for a mining management company, exploring the company's historical growth and crafting visual representations such as equity structure diagrams

SDIC Securities Shanghai, China

Intern, Institutional Clients Department

Jun. 2023 - Aug. 2023

- Conducted research on nine listed companies that had potential for cooperation, and wrote daily and weekly reports based on companies' announcements
- Examined partnerships of over 150 listed companies from the Growth Enterprises and Science & Technology Innovation Boards with securities firms since 2021, covering aspects like stock pledges, equity incentives, and M&As; documented results in Excel and evaluated the cooperation prospects of each firm
- Studied business processes of the department relevant to investment banking, shareholder services for listed companies, and bond services, sorted out materials, and attended meetings with clients

### RESEARCH AND PROJECT EXPERIENCE

# University Research Initiative: Analyzing and Modeling Data for Supplementary Diagnosis of Colorectal Cancer from Health Screening Records

Shanghai, China

Research Assistant - Supervisor: Prof. Hua Cheng

Apr. 2023 - Present

- Developed a missing value imputation strategy using the K-Nearest Neighbors (KNN) model, efficiently addressing missing data scenarios for both discrete and continuous variables
- Built a robust prediction model utilizing the Random Forest algorithm and fine-tuned model parameters through gradient search optimization
- Applied feature engineering techniques to create new variables, significantly enhancing the accuracy and reducing the error rate of the prediction model

# Combinatorial Problems in the Realm of Quasi-Hereditary Algebra

Shanghai, China

Research Assistant - Supervisor: Prof. Zhang Yuehui

May 2022 - May 2023

- Computed quasi-hereditary orders in general cases, consolidated the results, and hypothesized upper and lower bounds for the quasi-hereditary orders of  $A_n$ -type tree algebras
- Examined the exact upper and lower bounds of quasi-hereditary orders for an  $A_n$ -type tree algebra, derived two pivotal generator conditions, and accurately computed its algebraic structure
- Utilized arrow diagrams to convert algebraic propositions into pure combinatorial challenges, employed combinatorial strategies to introduce original mobility theorems, ladder lemmas, and parallelogram lemmas, and evaluated related quasi-hereditary orders. The findings introduced a novel theoretical instrument for future research

## Independent Study: Development of a Backtesting Framework and Replication of Factor Research

- Developed a backtesting framework for stocks and futures, executing fundamental backtesting for various factors
- Based on daily frequency data, researched turnover rate-related factors and developed the Stable Turnover Rate factor (STR), achieving an annualized return of 42.9% and a win rate of 77% within the backtesting framework, and retains stock-picking capacity after Barra neutralization.
- Replicated the UTR research report, employing quantitative analysis to assess and confirm the effectiveness of UTR2.0 across all A-shares

### **Independent Project: Numerical Simulation of Stochastic Differential Equations**

- Executed numerical simulations to explore Brownian motion, analyzing its graphical depictions and key properties
- Computed numerical solutions for the trajectories of stochastic differential equations and investigated the impact of varying parameters on the characteristics of these orbits

### **CONTEST AND HONORS**

- First Prize in Chinese Mathematics Competitions (provincial-level)
- Second Prize in China Undergraduate Mathematical Contest in Modeling
- Winner of Wu Wenjun Scholarship (ranked top 15)

### **MISCELLANEOUS**

**Programming:** Python, R, MATLAB, C++, LaTeX **Language:** Chinese (native), English (fluent, CET-6 563)