

# Ziliang Shen

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Shanghai, China

## OBJECTIVE

I'm currently pursuing a Ph.D. in Statistics at Shanghai University of Finance and Economics. I am passionate about statistical and machine learning theories, particularly in field of **high-dimensional statistical learning, quantile regression, reinforcement learning in finance**, and **distributed statistical inference**.

With a calm demeanor and a passion for tech innovation, I thrive on learning and applying new insights in my work.

## EDUCATION

- **Shanghai University of Finance and Economics** 2021.09 - Now  
PhD in Statistics Shanghai, China
- **Nanchang University** 2015.09 - 2019.06  
Bachelor in Mathematics and Applied Mathematics (Financial Mathematics) Nanchang, China

## EXPERIENCE

- **Turing Fund Managment** [🌐] 2025.03 - Now  
Reinforcement Learning Quantitative Research Shanghai, China
  - Developed a high-frequency stock trading execution model achieving a measurable reduction in execution slippage within a simulated Level 3 data environment.
  - Implemented DQN and PPO algorithms with hierarchical reinforcement learning, enhancing sample efficiency and overall strategy stability.
  - Conducted analysis on real market data, identifying delayed-reward patterns and key factors influencing model robustness.

## PROJECTS

- **Shanghai Electric Solar Cell Target Detection Project** 2024.05 - 2024.06  
Tools: Faster R-CNN, PyTorch, Labeling Tools
  - Led university team in collaboration with Shanghai Hongpu Information Technology, coordinating on-site work
  - Directed data labeling and iteratively optimized Faster R-CNN-based detection model to improve accuracy and efficiency
- **Shanghai GDP Nowcasting Project** 2024.06 - 2024.10  
Tools: R, Python, Dynamic Factor Model, MF-BAVART, LSTM
  - Developed multiple nowcasting models to address missing data and mixed-frequency issues, enabling real-time GDP growth rate estimation

## TEACHING EXPERIENCE

- **Teaching Assistant** 2022.09 - Present
  - Undergraduate Courses: Advanced Mathematical Statistics I & II, Linear Model, Distributed Computation.

## PUBLICATIONS

C=CONFERENCE, J=JOURNAL, S=IN SUBMISSION

- [C.1] Caixing Wang, Ziliang Shen. (2024). **Distributed high-dimensional quantile regression: estimation efficiency and support recovery**. In *International Conference on Machine Learning (ICML)*, Spotlight. [Code]
- [S.1] Caixing Wang, Ziliang Shen, Shaoli Wang, Xingdong Feng. **Estimation and Inference on Distributed High-Dimensional Quantile Regression: Double-Smoothing and Debiasing**. Manuscript submitted to *Journal of Machine Learning Research (JMLR)*.
- [S.2] Hanteng Ma, Ziliang Shen, Xingdong Feng, Xin Liu. **Sparsity learning via structured functional factor augmentation**. Manuscript submitted to *Statistica Sinica*.
- [S.3] Ziliang Shen, Caixing Wang, Shaoli Wang, Yibo Yan. **High-dimensional differentially private quantile regression: distributed estimation and statistical inference**. Manuscript submitted to *IEEE Transactions on Information Theory*.


HONORS AND AWARDS

- **First-class Undergraduate Scholarship**  
*Nanchang University*
- **First-class Graduate Scholarship**  
*Shanghai University of Finance and Economics*
- **Excellent Student Award & Excellent Member of the Communist Youth League**  
*Shanghai University of Finance and Economics*
- **National Scholarship for Doctoral Students**  
*Ministry of Education, China*


ACTIVITIES

- **17th China R Conference & 2024 X Intelligence Conference**  
*Renmin University of China*  
◦ Participated in *New Statistical Methods I* session and engaged in academic exchange  


Jul 2024


- **Shanghai Doctoral Forum on Statistics**  
*East China Normal University*  
◦ Awarded Second Prize for research presentation  

Nov 2024


- **3rd National Conference on Statistics and Data Science**  
*Zhejiang University*  
◦ Presented research poster and exchanged ideas with peers  

Jul 2025



PROFESSIONAL MEMBERSHIPS

- **IEEE student membership** 2025.07 - Present

REFERENCES

1. **Jianhua Chen**  
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Nanchang University  
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2. **Mei Zhuang**  
Deputy Secretary of the Party Committee  
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*Relationship: advisor*