

# Tianyi Guo

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## Education

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<b>University of Southern California</b> <i>Master of Science in Financial Engineering</i>	<i>Los Angeles, CA</i> <i>Aug 2021 - May 2023</i>
<b>Shanghai University of Finance and Economics</b> <i>Bachelor of Economics in Economic Statistics</i> <i>Bachelor of Management in Labor and Social Security</i>	<i>Shanghai, China</i> <i>July 2016 - July 2019</i> <i>Sept 2015 - July 2019</i>

## Research Experience

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<b>Machine Learning Models for Multi-factor Stock Selection</b> <i>Master Thesis with Prof. Petros Ioannou</i>	<i>Los Angeles, CA</i> <i>Jan 2023 - May 2023</i>
<ul style="list-style-type: none"><li>◦ Examined multiple machine learning approaches including GLM, Random Forest, GBRT, and LSTM for stock return prediction on CSI-500 constituent stocks during 2012/1-2022/7 using factors across different dimensions.</li><li>◦ Demonstrated that gradient boosted trees with limited depth performed best on monthly data, followed by LSTM.</li></ul>	
<b>Composite Investor Sentiment Index Analysis</b> <i>Bachelor Thesis with Prof. Hongbiao Zhao</i>	<i>Shanghai, China</i> <i>Oct 2018 - Apr 2019</i>
<ul style="list-style-type: none"><li>◦ Developed a composite investor sentiment index by selecting key market indicators and adjusted for macroeconomic cycles through principal component analysis, showing consistency with return fluctuation in Chinese stock market.</li></ul>	

## Honors

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Outstanding Student Award	<i>Shanghai, 2017</i>
Shanghai Scholarship	<i>Shanghai, 2017</i>
First Prize of People Scholarship	<i>Shanghai, 2017</i>
Meritorious Winner of Mathematical Contest in Modeling (MCM)	<i>Shanghai, 2018</i>
National Second Prize of Contemporary Undergraduate Mathematical Contest in Modeling	<i>Shanghai, 2018</i>

## Skills

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<b>Math &amp; Stats Skills:</b> Regression, Optimization, Derivative Equation, Stochastic Processes, Numerical Simulation
<b>Computer Skills:</b> Python, R, Stata, Julia, Matlab, SQL, Tableau