

# Xinyu Xia

📍 Shenzhen City, Nanshan District, Peking University HSBC Business School

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## Education

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<b>Peking University</b> MPhil in Economics	2024.09–2027.06 (Expected)
<b>Beijing Jiaotong University</b> BSc in Economics, <i>summa cum laude</i>	2020.09–2024.06

## Research Interest

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**Primary:** Green Finance  
**Secondary:** Digital Currency

## Working Papers

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### **Optimizing Charging Infrastructure for Electric Taxis: A Data-Driven Analysis of Spatiotemporal Behavior Patterns and Urban Environmental Factors(With Jingjuan Jiao)**

The electrification of urban transportation plays a pivotal role in achieving energy conservation and emission reduction goals. A fundamental obstacle to this transition lies in the current mismatch between public charging infrastructure availability and actual demand patterns. This study investigates electric taxi (e-taxi) drivers' charging behavior through analysis of comprehensive GPS trajectory data from a fully electrified fleet, addressing two primary driver considerations: charging convenience and passenger demand. Using advanced analytical methods, we reveal the complex nonlinear relationships, threshold effects, and interactions between charging behavior and three key factors: (1) built environment characteristics, (2) temporal patterns, and (3) ridership dynamics. Our findings demonstrate that built environment features exert the strongest influence on charging station utilization, followed by temporal factors and ridership patterns. The analysis further identifies specific nonlinear thresholds and interaction effects that significantly shape charging decisions. These evidence-based insights provide urban planners and policymakers with quantitative guidance for optimizing public charging infrastructure deployment, enabling data-driven spatial planning strategies that align with e-taxi drivers' operational needs and preferences.

### **Revealed Carbon Risk (With Kai Li)**

This Abstract is still not available yet.

### **Charting by Machine(PHBS-UK Fintech Research Programme)**

We test the efficient market hypothesis by using machine learning to forecast bitcoin returns from historical performance. These forecasts strongly predict the cross-section of future stock returns. The predictive power holds in most subperiods and is strong among the largest 500 stocks. The forecasting function has important nonlinearities and interactions, is remarkably stable through time, and captures effects distinct from momentum, reversal, and extant technical signals. These findings question the efficient market hypothesis and indicate that technical analysis and charting have merit. We also demonstrate that machine learning models that perform well in optimization continue to perform well out-of-sample.

### **The Rise and Fall of FTX**

The abrupt downfall of Futures Exchange (FTX) has sent shockwaves throughout the cryptocurrency industry. In this case report, we delve into the causes and consequences of the crisis at the FTX exchange, examining the precarious relationship with Alameda that sowed the seeds of danger. Theda, using FTX's own token as collateral, led to a ledral, aledactionledactionledactiondeathinteraction between FTX'interaction between FTX's crypto related entities, the fallout was predominantly contained within the crypto sector. We conclude with a discussion on the future regulatory landscape and its implications for the industry.

## Awards, Scholarships, and Grants

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National Scholarship for Undergraduate Students, China	2021
National Scholarship for Undergraduate Students, China	2022
National Scholarship for Undergraduate Students, China	2023

## Teaching Assistant Experience

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ESG Finance (MA) , TA for Prof. Yifei Zhang	Fall 2024
Machine Learning in Asset Pricing(MA) , TA for Prof. Lingxiao Zhao	Spring 2025

## Research Experience and Other Employment

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<b>China International Capital Corporation</b>	2023.09-2024.02
Research Group, Real Estate and Spatial Service	
<b>HongKong University of Science and Technology, Business School</b>	2025.05–Now
Full time Research Assistant, with Prof.Chu Zhang	
<b>The People's Bank of China</b>	2023
Credit Reference Center	

## Additional Information

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<b>Citizenship</b>	China
<b>Permanent Resident</b>	China, Shenzhen
<b>Programming Skills</b>	Python, R, Matlab, Mathematica, Stata, SAS
<b>Languages</b>	English (Fluent), Chinese (Native)