Boxin (David) Zhang

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EDUCATION

Stanford University Stanford, CA

M.S. in Computer Science (GPA: 3.9/4.0), B.S. in Physics (GPA: 3.9/4.0)

Expected Dec. 2024

Relevant Coursework (Ph.D. Level)

CS: Machine Learning, NLP, Computer Vision with Deep Learning, Operating Systems, Algorithms and Data Structures *Math & Physics*: Statistical Learning, Statistical Inference, Probability Theory, Lagrangian Mechanics, Statistical Mechanics

Honors

- 1. Admittance to the Summer Science Program in Astrophysics (only admitted applicant from China, 0.7% acceptance rate)
- 2. International Mathematical Modeling Challenge, Finalist (top 3 / 300+) teams

INTERNSHIP

HAP Capital

New York, NY

Quantitative Researcher Intern (Options Team)

Jun. 2024 - Present

- Received outstanding feedback from the team for demonstrating exemplary creativity and high research standards
- Built three ML models from scratch and developed innovative volatility-based features to predict hidden liquidity events
- Enhanced predictions by leveraging stock covariance relations and developing clusters inspired by astrophysics principles
- Identified 50+ profitable events in advance using models, which were subsequently deployed as a team tool in production

JO Investments Beijing, China

Quantitative Researcher Intern (Mid-Frequency Team)

Jun. 2023 – Jul. 2023

- Received exceptionally positive feedback from partners for displaying high standards of research and communication
- Implemented the **statistical arbitrage** strategy of pairs trading to identify mid-frequency drivers in China's futures market
- Investigated pair correlation anomalies using pulse signal analysis and designed features to capture abnormal profits

Stanford Computational Astrophysics Lab (KIPAC)

Stanford, CA

Research Intern

Apr. 2021 – May. 2021 / Jun. 2022 – Sept. 2022 / Apr. 2023 – Jun. 2023

- Rated as the top undergrad researcher (out of 40+) by developing and presenting an original galaxy-halo model at SLAC
- Developed the **statistical model** by cleaning **1TB** of cosmic data, identifying significant physical parameters, splitting data on each parameter, and validating results of simulations to describe galaxy-dark matter mass loss relationship

Key Lab of Particle Astrophysics, Chinese Academy of Sciences

Beijing, China

Research Intern

Dec. 2020 – Mar. 2021

- Independently developed a satellite tracking system that recovers the positioning ability of a malfunctioning satellite
- Designed multiple additional features (e.g., joint observation scheduling) based on **orbital mechanics**, **numerical analysis**, and **Python programming** according to the requirement of 5 different sub-teams; published <u>articles</u> on MNRAS

LEADERSHIP

Stanford Department of Computer Science | CS 107E Student Section Leader (Honorary)

Dec. 2021 - Apr. 2022

- Selected as Honorary Section Leader from 40 students based on exceptional performance in system design
- Led office hours focusing on C-library and graphics modules, emphasizing pair programming and strategic thinking skills

SKILLS