

GUANGYU(DANIEL) HOU

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PERSONAL SUMMARY

Highly ambitious senior student majoring in applied mathematics, who has great curiosity and energy, particularly within the realm of **stochastic control, stochastic processes, and financial mathematics**. My passion lies in discovering creative connections between disparate fields and various domains, leveraging this insight to construct robust and rigorous mathematical models that illuminate complex phenomena.

EDUCATION

Nankai University

Bachelor of Science in Applied Mathematics

Tianjin

2021 fall -

Chern-class for one year (selected outstanding students in academic performance)

Relevant Coursework :Real Analysis(A) PDE(A) Python(A) Probability Theory(A-) Stochastic Process(A-)

University of California, Berkeley

Berkeley CA

BERKELEY GLOBAL ACCESS (BGA),

2024 spring -

nominated by Nankai University to have access to UCB

Relevant Coursework :Stochastic Processes(A), **Graduate level**: Probability Theory(A-), Non-stationary dynamics(A)

RESEARCH

New media marketing strategy for time-honored brands

Tianjin

China National University Student Innovation & Entrepreneurship Development Program

Jan 2023 -

- Data collecting and analyzing using python.
- Working on a method to perform sentiment analysis behind consumers' comments.
- Seeking for a beneficial solution to "marketing" problems faced by time-honored brands.

Feasibility of Transfer learning and Mean Field Games

Online

advised by Professor Haoyang Cao from Johns Hopkins University

Apr 2024 -

- *Explored Optimal Transport* to address domain adaptation challenges, which form the foundation of transfer learning.
- *Focused on Mean Field Equilibrium*, studying how they can be used efficiently to approximate n-player Nash equilibrium, with a particular emphasis on their benefits and underlying procedures.
- *Investigated applications of Mean Field Games* across various models, analyzing how to design specific types of games and their potential real-world implementations.

WORKING EXPERIENCE

Data Analyst and Quant Developer Intern

Beijing

China Securities

Jul 2024 - Sep 2024

- Utilized *Python* for *data collection and analysis*, leveraging *Spark* to filter out anomalies and missing data in stock futures from the Wind data source. Also assessed the accuracy of data from the Ricequant platform.
- *Integrated the Tonghuashun API to replicate Wind API functionalities*, enabling strategy execution, order placement, and cross-validation of data for enhanced system reliability.

EXTRACURRICULAR ACTIVITIES

Student Union of Nankai University

Tianjin

Minister in Sports Department

Oct 2021 - Jun 2023

- Managed and coordinated a diverse range of sports activities and contests at Nankai University.

- Successfully orchestrated events that attracted over 1000 participants annually, fostering a vibrant and inclusive campus community.
- Honored as the *Best Student Cadre* of the union.

HONORS & SCHOLARSHIPS

- Excellent Student Social Work Scholarship of Nankai University *Dec 2023*
- Best Student Cadre *Sep 2023*
- China National University Student Innovation & Entrepreneurship Development Program *Jan 2023*
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