Wenlu Xu

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EDUCATION

University of California, Los Angeles (UCLA)　　　　　　　　　　　　**Los Angeles, CA, USA**
Ph.D. in Statistics & Data Science　　　　　　　　　　　　　　　　　　　　　09/2022-Present
Advisor: Xiaowu Dai, GPA: 3.97/4.0.

Shandong University (SDU), Taishan College (Honors)　　　　　　**Jinan, Shandong, China**
B.S. in Mathematics and Applied Mathematics (Ranking: Top 1)　　　　　　09/2018-06/2022
Thesis Advisor: Tianyang Nie, GPA: 3.93/4.0 (92.71/100).

PAPERS

Double Machine Learning
- **Xu, W.**, & Dai X. (2023). **A Contextual Bayesian-Incentive-Compatible Algorithm for Causal Bandit in Recommender Systems.** *Preprint 2023+.*

Kernel Estimation
- **Xu, W.**, & Dai X. (2023). **Statistical Inference with Gradient Information.** *Preprint 2023+.*

Federated Learning
- Tao, Y., Cui, S., **Xu, W.**, Yin, H., Yu, D., Liang, W., & Cheng, X. (2023). **Byzantine-Resilient Federated Learning at Edge.** *IEEE Transactions on Computers.* (Volume: 72, Issue: 9, 01 September 2023). [https://ieeexplore.ieee.org/document/10070815]

Privacy-Aware Computing
- Yu, D., Zhang, K., Tao, Y., **Xu, W.**, Zou, Y., & Cheng, X. (2023). **Correlation-Aware and Personalized Privacy-Preserving Data Collection.** *2024 International Conference on Computing, Networking and Communications (ICNC) - ICNC'24 Invited Papers.* (Presented in session CIS-3: CIS III).

Stochastic Differential Equation
- **Xu, W.**, & Nie T. (2022). **Fair Pricing for American Options in Nonlinear Market.** *Outstanding Thesis Award at SDU.*
- **Xu, W.**, Liu, Z., Ren, Y., & Fu, M. (2021). **The Application of Differential Equations in the SIR Model — Taking COVID-19 as an Example.** *National Undergraduate Innovation & Entrepreneurship Training Program. (Fully sponsored).*

Miscellaneous
- **Xu, W.**, Chen L., & Huang Y. (2020). **Designing the Optimal Plan for Crossing the Desert in a Virtual Game.** *Shandong Provincial First Prize in the 2020 Contemporary Undergraduate Mathematical Contest in Modeling. (Top 5%).*

AWARDS AND HONORS

Academic
- Summer Mentored Research Fellowship (Top 4)　　　　　　　　　　　　　　2022 **UCLA**
- Dean's Award (Top 1)　　　　　　　　　　　　　　　　　　　　　　　　　2022 **SDU**
- National Third Prize in the National Undergraduate Mathematical Contest　　　2020-2021 **China**
- Academic scholarship of First Prize (Top 2)　　　　　　　　　　　　　　　2019-2021 **SDU**

Comprehensive Qualities
- National Merit Scholarship (Top 0.2%)　　　　　　　　　　　　　　　　　2021 **China**
- Sunflower Scholarship by Industrial and Commercial Bank of China (Top 1)　　2020 **China ICBC**
- Merit Student of Shandong University (Top 2)　　　　　　　　　　　　　　2019 **SDU**

Leadership
- Outstanding Student Leader of Taishan College　　　　　　　　　　　　　2019-2020 **SDU**

ACADEMIC SERVICE

Journal Reviewer

STAT   2023-Present

INVITED TALKS

Double Machine Learning Workshop   **UCLA**

Speaker, the Summer Institutes in Computational Social Science (SICSS)   06/2023

- An One-hour workshop introducing double machine learning to students and professors in social science.

PROFESSIONAL EXPERIENCES

China Securities   **Beijing, China**

Part-time Assistant, Asset Management Dept.   10/2021-11/2021

- Mined stock factors by genetic programming, using Python.
- Developed multi-factor investment strategies and built a pool of selective stocks.

Tensor Pacific   **Shanghai, China**

Quantitative Trading Strategy Development Engineer Intern, Investment Research Dept.   08/2021-12/2021

- Developed a future prediction algorithm with 92% accuracy based on deep learning, using Python.
- Developed a multi-asset allocation strategy with 1% retracement in 5 months.

TF Securities   **Shanghai, China**

Analyst Intern, Investment Banking Headquarters.   07/2021

- Performed due diligence for 4 projects, and successfully detected the reasons for unsuccessful M&A of a metal group.

Goldman Sachs   **Remote**

Part-time Assistant, Consumer and Investment Management Dept.   04/2021-06/2021

- Created a technical documentation, and established a framework with custom classes.
- Visualized stock price data and conducted backtests on certain strategies, using Python.

TEACHING EXPERIENCE

Academic Student Employee   **UCLA**

TA STATS-201B *Statistical Modeling and Learning*, Instructor: Xiaowu Dai.   Winter/2024

Special Reader STATS-211 *Topics in Economics and Machine Learning*, Instructor: Xiaowu Dai.   Winter/2024

TA STATS-10 *Introduction to Statistical Reasoning*, Instructor: Maria Cha.   Fall/2023

Undergraduate Teaching Assistant   **SDU**

TA *Mathematics Project in English: Writing and Presenting*, Instructor: Jordan Stoyanov.   Fall/2021

TA *Probability Theory*, Instructor: Tianyang Nie.   Fall/2020-2021

TA *Mathematical Analysis I & II*, Instructor: Zongyuan Huang.   2019-2021

OTHER INFORMATION

Computer Skills: Python, R, Java (China Computer Federation Accredited, Top 5.2%), MATLAB, Latex, C#.
Languages: English (fluent), Chinese (native).