

RUOHAN ZHAN

rhzhan@stanford.edu · <https://ruohanzhan.github.io>

RESEARCH AREA

Data-driven decision making; Causal inference; Experimental design; Bandits

EMPLOYMENT

Hong Kong University of Science and Technology 2023 -

Assistant Professor, Department of Industrial Engineering and Decision Analytics

Assistant Professor, Department of Mathematics

Stanford Graduate School of Business 2022

Postdoctoral Researcher

EDUCATION

Stanford University 2017 - 2021

Ph.D., Computational and Applied Mathematics

M.S., Statistics

Peking University 2013 - 2017

B.S., Mathematics

INDUSTRIAL EXPERIENCE

Kuaishou Technology 2021 - 2022

Senior Algorithmic Engineer, Short-formed Video Recommender Systems Team

Google 2020

Research Intern, Recommender Systems and Reinforcement Learning Team

Cubist Systematic Strategies 2018

Summer Analyst, Equity Trading Team

WORKING PAPERS

- **R. Zhan**, Z. Ren, S. Athey, Z. Zhou. Policy Learning with Adaptively Collected Data. Under major revision at Management Science.
- **R. Zhan**, V. Hadad, D. A. Hirshberg, S. Athey. Off-Policy Evaluation via Adaptive Weighting with Data from Contextual Bandits. Shorter version accepted in Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery and Data Mining 2021.
- **R. Zhan**, Q. Cai, C. Zhang, D. Zheng. Constrained Reinforcement Learning for Short Video Recommendation.

PUBLICATIONS

- V. Hadad, D. A. Hirshberg, **R. Zhan**, S. Wager, S. Athey. Confidence Intervals for Policy Evaluation in Adaptive Experiments. Proceedings of the National Academy of Sciences 118.15 (2021).
- **R. Zhan**, C. Pei, Q. Su, J. Wen, D. Zheng, P. Jiang. Deconfounding Duration Bias in Watch-time Prediction. In Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining 2022.
- **R. Zhan**, K. Christakopoulou, E. Le, J. Ooi, M. Mladenov, A. Beutel, C. Boutilier, E. Chi, M. Chen. Towards Content Provider Aware Recommender Systems: A Simulation Study on the Interplay between User and Provider Utilities. In Proceedings of the Web Conference 2021.
- Luo, X., **Zhan, R.**, Chang, H., Yang, F., & Milanfar, P. (2020). Distortion Agnostic Deep Watermarking. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 13548-13557).
- **Zhan, R.**, & Dong, B. (2016). CT Image Reconstruction by Spatial-Radon Domain Data-Driven Tight Frame Regularization. SIAM Journal on Imaging Sciences, 9(3), 1063-1083.
- B. Yuan, S. R. Chitturi, G. Iyer, N. Li, X. Xu, R. Zhan, R. Llerena, J.T. Yen, A. L. Bertozzi. Machine Learning for Cardiac Ultrasound Time Series Data. SPIE Medical Imaging 2017.

FELLOWSHIPS & HONORS

Fellowships

- TOTAL Innovation Fellowship, 2018, 2019
- D.E. Shaw Exploration Fellowship, 2019
- National Scholarship, China, 2016
- Qualcomm Global Scholarship, 2015
- Lixin Tang Scholarship, 2014 - 2016

Honors

- First Prize of 2018 Citadel Datathon at Stanford, Spotlight, 2018
- Finalist of the Mathematical Contest in Modeling (COMAP), 2016
- Innovation Award, PKU, 2016
- First Prize in PKU Challenge Cup, 2015

PROFESSIONAL ACTIVITIES

- | | |
|---|------------|
| • Reviewer for SIGKDD Conference on Knowledge Discovery and Data Mining | 2021, 2022 |
| • Reviewer for Journal of the Royal Statistical Society: Series B | 2021 |
| • Reviewer for Journal of Artificial Intelligence Research | 2019, 2020 |
| • Reviewer for International Conference on Learning Representations | 2021 |
| • Reviewer for International Conference on Machine Learning | 2020, 2021 |
| • Reviewer for IEEE Intelligent Transportation Systems Conference | 2020 |

SKILLS

Technical	Python (NumPy, SciPy, Scikit-learn, Pandas, TensorFlow, PyTorch, Keras, NetworkX), R, C++, MATLAB, HTML, Bloomberg Terminal
Languages	English, Mandarin, Cantonese

EXTRACURRICULAR

Mentorship	Stanford Women in Math Mentoring: mentor Stanford undergraduate prospective math majors; Stanford Future Advancers of Science and Technology: mentor students in James Lick High School on science and engineering projects
-------------------	---