## Yunfan Zhao

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## EDUCATIONColumbia UniversityNew York, NYPh.D. in Operations Research, School of Engineering and Applied ScienceSeptember 2019 – May 2023Johns Hopkins UniversityBaltimore, MDCombined B.S. / M.S. in Applied Mathematics and StatisticsSeptember 2014 - December 2018WORK / INTERNSHIP EXPERIENCESeptember 2014 - December 2018

Harvard University, postdoc in CS

- Develop Foundation Models for restless multi-arm bandits (RMAB), a widely studied multi-agent RL problem.

- Our model has general zero-shot ability on a wide-range of RMABs, and can be fine-tuned on specific instances.

Experian Labs, Data Scientist Intern

- Created DeFi credit rating model to predicted liquidation events in crypto lending.
- Use Spark to generated features with data collected from the Ethereum blockchain; fine-tuned an XGBoost model.
- Delivered the model at the end of the summer; model AUC matched the best in the industry.

## **PUBLICATIONS**

## I mainly work on (1) reinforcement learning (2) foundation models (3) intersection of optimization & ML

- <u>\*Zhao, Y.</u>, \*Behari, N., Huges, E., Zhang, E., Nagaraj, D., Tuyls, K., Taneja, A., Tambe, M. Towards Zero Shot Learning in Restless Multi-armed Bandits. *Under Review at AAMAS*.
- \*Sehanobish, A., \*Choromanski, K., \*<u>Zhao, Y.</u>, \*Dubey, A., \*Likhosherstov, V. Scalable Neural Network Kernels. Under Review at ICLR. (Equal contribution)
- <u>\*Zhao, Y.</u>, \*Pan, Q., \*Choromanski, K., Jain, D., Sindhwani, V. Implicit Two-Tower Policies, *under Review at AISTATS*.
- \*Choromanski, K., \*Sehanobish, A., \*Lin H., <u>\*Zhao, Y.</u>, Berger, E., Parshakova, T., Pan, A., Watkins, D., et al. Efficient Graph Field Integrators Meet Point Clouds. *ICML*, 2023. (Equal contribution)
- \*Elmachtoub, A. N., \*Gupta, V., <u>\*Zhao, Y.</u> Balanced Off-Policy Evaluation for Personalized Pricing. *AISTATS,* 2023. (Equal contribution, alphabetical order)
- \*Kpotufe, S., \*Yuan, G., <u>\*Zhao, Y.</u> Nuances in Margin Conditions Determine Gains in Active Learning. *AISTATS,* 2022. (Equal contribution, alphabetical order)
- <u>Zhao, Y.</u>, Wierman, J., Marge, T. Efficient and Perfect Domination on Archimedean Lattices. *Electronic Journal* of Combinatorics, 2022.
- \*Elmachtoub, A. N., \*Lam, H., \*Zhang, H., <u>\*Zhao, Y.</u> Estimate-Then-Optimize Versus Integrated-Estimation-Optimization: A Stochastic Dominance Perspective. *Under Review at Operations Research. (Alphabetical order)*
- <u>Zhao, Y.</u>, Marge, T., Wierman, J. Perfect Domination Ratios of Archimedean Lattices. *Congressus Numerantium*, Vol 231, p. 39-61, 2019.
- Marge, T., <u>Zhao, Y.</u>, Wierman, J. Efficient and Non-efficient Domination of Archimedean Lattices. *Congressus Numerantium*, Vol 231, p. 95-108, 2019.

July 2023 - present

May 2022 - August 2022