Weici Pan

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About me

I am a PhD candidate in Operations Research specializing in online learning and optimization for AI/ML systems. My research develops frameworks for reliable and efficient AI deployment. I combine rigorous optimization theory with practical system design.

EDUCATION

PhD in Operations Research
2021 – present
Stony Brook University, Stony Brook, NY
Department of Applied Mathematics and Statistics
Advised by Prof. Zhenhua Liu
Research direction: Reliable and Efficient Systems for AI/Machine Learning
Preliminary exam committee: Prof. Zhenhua Liu, Prof. Jian Li, Prof. Adam Wierman (Caltech), Dr. Yuan Chen (NVIDIA)

BEng in Computer Science and Technology (Yao Class)
2017 – 2021
Tsinghua University, China
Yao Class, Institute for Interdisciplinary Information Sciences
Advised by Prof. Zhixuan Fang

EXPERIENCE

Visiting Student Researcher
2020
California Institute of Technology, Department of Computing and Mathematical Sciences
Mentored by Prof. Adam Wierman
Project topic: online control with additive and multiplicative noises

Junior Research Assistant
2019
The Chinese University of Hong Kong, Department of Information Engineering
Mentored by Prof. Minghua Chen
Project topic: energy-related scheduling via optimization with an inventory

PUBLICATIONS

Conference

Fu H, Pan W, Liu Z, Lin S. MALLM: Multi-Agent Decision-Making with LLMs for Multi-User Edge-Sensor Environments. *IEEE AIoT 2025*

Pan W, Liu Z. Switching Constrained OCO with Predictions and Feedback Delays. *IFIP Performance 2025*

Pan W, Shi G, Lin Y, Wierman A. Online Optimization with Feedback Delay and Nonlinear Switching Cost. *ACM SIGMETRICS 2022*

Journal

Pan W, Liu Z. Switching constrained OCO with predictions and feedback delays. Performance Evaluation. 2025 Nov 5:102524. [Journal Version of the paper at IFIP Performance 2025]

Fu H, Pan W, Zhou L, Zhang Z, Liu Z, Lin S. MALLM: Multi-Agent Decision-Making with LLMs for Multi-User Edge-Sensor Environments. ACM SIGMETRICS Performance Evaluation Review. 2025 Aug 27;53(2):3-8. [Journal Version of the paper at AI Crossroads Workshop]

Pan W, Liu Z. Non-stationary Bandits with Heavy Tail. *ACM SIGMETRICS Performance Evaluation Review.* 2024 Sep 6;52(2):33-5. [Journal Version of the paper at MAMA 2024]

Pan W, Liu Z. Switching Constrained Online Convex Optimization with Predictions and Feedback Delays. *ACM SIGMETRICS Performance Evaluation Review.* 2023 Oct 2;51(2):3-5. [Journal Version of the paper at MAMA 2023]

Pan W, Shi G, Lin Y, Wierman A. Online optimization with feedback delay and nonlinear switching cost. Proceedings of the ACM on Measurement and Analysis of Computing Systems. 2022 Feb 25;6(1):1-34 [Journal Version of the paper at ACM SIGMETRICS 2022].

Others

Han BS, Pan W, Tay YC. Industrial Panel Discussion: The Impact of AI/ML on SIGMETRICS. *ACM SIGMETRICS Performance Evaluation Review.* 2025 Aug 27;53(2):143-4.

Pan W, Nie C, Liu, Z. Efficient Federated Learning on Edge Devices over Heterogeneous Network and Data. Poster at *OSDI 2023*

Invited Talks

2025 INFORMS Annual Meeting
Failure-Aware Dynamic Reserve and Checkpoint Scheduling for Sustainable GPU Clusters
Presented at the 2025 INFORMS Annual Meeting on October 26-29, 2025 in Atlanta, GA, USA.

Teaching

AMS 691.01: Recent Progress in AI/ML: Applications, Architectures, and Systems
Teaching Assistant Fall 2025
AMS, Stony Brook University
Co-teaching the course, giving lectures on Transformers, AI Hallucinations, and AutoML.

AMS 303 GRAPH THEORY
Teaching Assistant Fall 2021 and Spring 2022
AMS, Stony Brook University

Services

ACM SIGMETRICS 2025
Web Chair
Responsible for setting up and maintaining the conference webpage, in collaboration with Sri Pramodh Rachuri

IEEE INFOCOM 2026
Reviewer
Delegated as the reviewer of papers submitted to IEEE INFOCOM 2026.

SKILLS

- **Programming Languages:** Python, C++, Mathematica
- **ML/AI:** PyTorch, TensorFlow, Transformers, OpenAI API, scikit-learn
- **Data & Optimization:** NumPy, pandas, Gurobi, CVX
- **Tools:** Git, tqdm, Jupyter, Docker