

Jingqi Fan

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EDUCATION

- **Northeastern University** *Sep. 2022 – Jul. 2026*
Shenyang, China
 - *B.Eng. in Software Engineering*
 - GPA: 3.7/4.0 TOEFL: 96/120
 - Selected courses: Algorithm Design and Analysis (4.0/4.0), Numerical Analysis (4.0/4.0), Information Retrieval Theory (4.0/4.0), Data Structures and Algorithms (4.0/4.0), Computer Networks (4.0/4.0), Principles of Computer Organization (3.7/4.0), Operating System (4.0/4.0), Database (4.0/4.0)

RESEARCH INTERESTS

My research lies in the theoretical foundations of **reinforcement learning** and their practical applications, with a particular emphasis on **multi-agent systems**.

PUBLICATIONS

†=CORRESPONDING AUTHOR

- [1] Jingqi Fan, Zilong Wang, Shuai Li[†], and Linghe Kong. **Multi-player Multi-armed Bandits with Delayed Feedback**. In The 34th International Joint Conference on Artificial Intelligence (IJCAI 2025).
<https://www.ijcai.org/proceedings/2025/0564.pdf>.
- [2] Jingqi Fan, Canzhe Zhao, Shuai Li, and Siwei Wang[†]. **Decentralized Asynchronous Multi-player Bandits**.
<https://arxiv.org/abs/2509.25824>.

RESEARCH EXPERIENCE

- **Differentiable Simulation of Large-Scale Queueing Networks for RL** *Jul. 2025 – Present*
New York, USA
 - Research Assistant, NYU Stern School of Business
 - Advisor: Prof. [Zhengyuan Zhou](#)
 - Built a fully tensorized, differentiable discrete-event simulation of large-scale queueing networks with TorchRL.
 - Implemented and evaluated both classical policies and RL algorithms, with up to 97% speedup.
- **Asynchronous Feedback in Competitive Multi-Player Multi-Armed Bandits** *Aug. 2023 – Sep. 2024*
Shanghai, China
 - Research Assistant, Shanghai Jiao Tong University
 - Advisor: Prof. [Shuai Li](#)
 - Designed algorithms for competing agents with delayed feedback and collisions. Established regret upper and lower bounds showing near-optimality.
 - Validated the algorithms through numerical simulations and real-world experiments.
- **Chapter 3 of RL Monograph: Online learning and Exploration-Exploitation Trade-off** *Jan. 2025 – Mar. 2025*
Shanghai, China
 - Research Assistant, Shanghai Jiao Tong University
 - Advisor: Prof. [Weinan Zhang](#)
 - Contributed to a nationally funded reinforcement learning monograph under the 101 Reform Project; authored the chapter “Online Learning and Exploration–Exploitation Trade-off”. Open-sourced the [code](#) and the [PDF](#).

INTERNSHIP

- **Decentralized Asynchronous Multi-player Multi-armed Bandits** *Dec. 2024 – Apr. 2025*
Beijing, China
 - Research Intern, Theory Center, Microsoft Research Asia
 - Mentor: Dr. [Siwei Wang](#)
 - Proposed a decentralized algorithm for multi-player bandits when players join and leave at arbitrary times.
 - Validated the algorithm through large-scale simulations up to 100 arms. Simulated IoT network environments to further evaluate its effectiveness.
- **Collaborative LLM Agents for Personalized Stock Alerts and Recommendations** *Mar. 2025 – Jul. 2025*
Shenyang, China
 - Research Intern, Financial Algorithm Industry Research Institute, Shenyang Linglong Technology
 - Mentor: Dr. [Jun Na](#)
 - Designed LLM agents for dynamic stock reports, integrating AkShare for market data, RAG for retrieval, and PPO-optimized delivery timing.
 - Inferred user interests and literacy from dialogue history to personalize recommendations and report formats.

SKILLS

- **Programming Languages:** Python, Java, C++, JavaScript, TypeScript, Swift, LEAN
- **Frameworks & Libraries:** PyTorch, NumPy, Pandas, Gym, TorchRL; Redis, Kafka, SpringAI, MinIO, MyBatis
- **Tools & Platforms:** Git, Docker, Linux, Jupyter Notebook, LaTeX