Ziqin Gong

Personal Profile

- A senior student majoring in Computer Science and Technology, planning to apply for Ph.D programs in Artificial Intelligence.
- Researched extensively into different fields of Reinforcement Learning, especially data-driven decision making.
- Accumulated some research experience and capable of leading a minor research project.
- Possessing sophisticated programming skills, familiar with collaborative development.

EDUCATION

Shanghai Jiao Tong University

Shanghai, China

B.Eng in Computer Science and Technology (IEEE Honor Class)

Sep. 2020 – Jun. 2024 (Expected)

- GPA: 87.84/100
- A+ Courses: Linear and Convex Optimization, Programming, and 5 others
- A Courses: Artificial Intelligence Principles and Applications, Probability and Statistics, Operating System, Information Theory, and 10 others

Experience

Apex Data & Knowledge Management Laboratory, SJTU

Shanghai, China

Member of Apex RL Group 😱

Jun. 2022 - present

- Assisted in building the guided traffic generation model for [1].
- Studied dataset distillation and developed an effective method to distill expert trajectories for Offline Reinforcement Learning.
- Ran baseline experiments for [2].

McCormick School of Engineering, Northwestern University

Remote

Intern, supervised by Prof. Zhaoran Wang

Jun. 2023 - present

- Contributed to the analysis of the Bayesian regret of mean-embedding POMDP and the design of a computationally efficient posterior sampling algorithm for this case.
- Improved the pessimistic algorithm for proximal Reinforcement Learning by introducing various pessimistic tricks.

Student Union, SEIEE, SJTU

Shanghai, China

Minister of Internet Propaganda Department

Nov. 2022 - Dec. 2023

- Operated the WeChat Official Account of SEIEE Student Union.
- Innovated several novel forms of articles published in the WeChat Official Account of SEIEE Student Union.
- Organized interesting activities to entertain students of SEIEE during the COVID-19 pandemic.

PERSONAL PROJECTS

rflax

7 rflax

A Python library that implements common Reinforcement Learning algorithms.

- Built with Google's new Machine Learning framework JAX .
- Fast and highly-customizable.

White Cloud Community

GitHub Link

Core Member

Course project of CS3604 Software Engineering and Project Management.

- Adopted Hierarchical Reinforcement Learning to build the recommendation system which, by means of asynchronous inference, can inference quickly even on a laptop.
- Constructed a DFA filter for fast and reliable text content moderation and a CNN for image content.

SKILLS

- **Programming Language**: multilingual, especially experienced in **Python**, comfortable with Rust, C/C++, Emacs Lisp, Coq (in random order).
- Machine Learning Framework: experienced in JAX, familiar with PyTorch.
- **Programming System**: familiar with Linux programming interface and also other Unix-like OSes.

MISCELLANEOUS

- Language: Chinese (mother tongue), English (fluent).
- Programming Editor: wild about Emacs, also familiar with Vim.

Publication

- [1] Z. Zhu, S. Zhang, et al., "RITA: Boost Autonomous Driving Simulators with Realistic Interactive Traffic Flow," arXiv, 2023.
- [2] J. Chen, Z. Gong, et al., "Looking Ahead to Avoid Being Late: Solving Hard-Constrained Traveling Salesman Problem," unpublished.