

# JIAYI WENG

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## EXPERIENCE

**OpenAI L.P.** San Francisco, CA  
Member of Technical Staff 07/2022 – now

Public works:

- ChatGPT: initial release effort, 6th author in the contribution list. <https://openai.com/index/chatgpt/>
- GPT-4: RL infra author. <https://openai.com/contributions/gpt-4/>
- GPT-4V: multimodal RL.
- GPT-4 Turbo: post-training.
- GPT-4o: post-training infra lead. <https://openai.com/gpt-4o-contributions/>
- o-series model: post-training infra. <https://openai.com/openai-o1-contributions/>
- Operator: early RL effort. <https://openai.com/index/introducing-operator/>
- GPT-4.5: post-training. <https://openai.com/index/introducing-gpt-4-5/>
- RFT (reinforcement fine-tuning): core RL infra author.
- GPT-5: post-training infra.

## EDUCATION

**Carnegie Mellon University**, School of Computer Science Pittsburgh, PA  
Master in Computational Data Science (System Track), QPA: 3.83/4 08/2020 – 05/2022  
**Tsinghua University** Beijing, China  
B.Eng. in Computer Science and Technology, GPA: 3.77/4, Rank: 18/154 08/2016 – 07/2020

## SELECTED OPEN-SOURCE PROJECTS

- 🔗 **Tianshou**: A PyTorch Deep Reinforcement Learning Library, ☆ 8686 03/2020 – 08/2020
- Implemented 20+ RL algorithms, imitation/offline RL and multi-agent RL within only 4000 lines of code
  - Supported any type of environment state, RNN-style training and parallel environment simulation (synchronous or asynchronous) for all algorithms with complete documentation and comprehensive unit tests
  - Received over 8k GitHub stars with more than 50 contributors around the world
- 🔗 **EnvPool**: A Highly Parallel RL Environment Execution Engine, ☆ 1183 05/2021 – 12/2021
- Implemented a high-performance parallel environment executor *EnvPool* with C++11 threadpool and pybind11 for a faster reinforcement learning agent training pipeline, about 20x faster than Python implementation and 2x faster than state-of-the-art solution

## PERSONAL PUBLICATIONS

- **Jiayi Weng**, Min Lin, Shengyi Huang, Bo Liu, Denys Makoviichuk, Viktor Makovychuk, Zichen Liu, Yufan Song, Ting Luo, Yukun Jiang, Zhongwen Xu, and Shuicheng Yan, “EnvPool: A Highly Parallel Reinforcement Learning Environment Execution Engine”, in **NeurIPS’22 Datasets and Benchmarks** [PDF]
- **Jiayi Weng**, Huayu Chen, Dong Yan, Kaichao You, Alexis Duburcq, Minghao Zhang, Yi Su, Hang Su, and Jun Zhu, “Tianshou: A Highly Modularized Deep Reinforcement Learning Library”, in **JMLR MLOSS**, [PDF]
- Dong Yan, **Jiayi Weng**, Shiyu Huang, Chongxuan Li, Yichi Zhou, Hang Su, and Jun Zhu, “Deep Reinforcement Learning with Credit Assignment for Combinatorial Optimization”, in **Pattern Recognition**, [PDF]
- Shihong Song\*, **Jiayi Weng\***, Hang Su, Dong Yan, Haosheng Zou, and Jun Zhu, “Playing FPS Game with Environment-aware Hierarchical Reinforcement Learning”, in **IJCAI’19 (oral)**, [PDF]
- **Jiayi Weng**, Tsung-Yi Ho, Weiqing Ji, Peng Liu, Mengdi Bao, and Hailong Yao, “URBER: Ultrafast Rule-Based Escape Routing Method for Large-Scale Sample Delivery Biochips”, in **TCAD’18**, [PDF]