

Yichen Wei

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[in](#) [LinkedIn](#)

[GitHub](#)

[Google Scholar](#)

Education

- 2023–2025 **Brown University**
M.S. in Computer Science
Advisor: Stefanie Tellex and George Konidaris
- 2018–2022 **Tufts University**
B.S. in Computer Science
Advisor: Jivko Sinapov

Research Experience

- Sep. 2023 – **Research Assistant**, Brown University
now
- **LTL-Protogol**: train a Reinforcement Learning agent conditioned on a multi-hot embedding goal space corresponding to Boolean formulas. The agent can then solve linear temporal logic (LTL) tasks by traversing through a finite automaton and planning a sequence of boolean formulas to achieve.
Work in progress.
 - **Lang2LTL-3**: develop a framework for grounding spatiotemporal commands for mobile manipulation tasks using LLM and VLM in novel indoor and outdoor environments without retraining.
Work in progress.
 - **LaNMP Dataset**: Developed data collection scripts on Boston Dynamics Spot and created a data pipeline for evaluation.
Accepted at RSS 2024 Workshops Data Generation for Robotics and Robotic Task Specification.
- Jan. 2022 – **Research Assistant**, Tufts University
- Oct. 2023
- Led design and implementation of **NovelGridWorldsV2** and **NovelGym**, a highly customizable and open-source Minecraft-like grid world gym environment suitable for planning and reinforcement learning agents, to test the agent's reaction to sudden changes to environment dynamics.
Published at AIJ and AAMAS 2024.
 - Implemented an RL agent to learn new options for the PDDL planner to recover from execution failures.

Selected Publications

Conference Publications

AAMAS 2024 **NovelGym: A Flexible Ecosystem for Hybrid Planning and Learning Agents (Oral) Designed for Open Worlds**

S Goel, **Y Wei**, P Lympopoulos, K Chura, M Scheutz, J Sinapov
International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2024
[Paper, GitHub]

[Journal Publications](#)

AIJ 2024 **A neurosymbolic cognitive architecture framework for handling novelties in open worlds**

S Goel, P Lympopoulos, R Thielstrom, E Krause, P Feeney, P Lorang, S Schneider, **Y Wei**, E Kildebeck, S Goss, MC Hughes, L Liu, J Sinapov, M Scheutz
Artificial Intelligence, 331, 104111. [Paper]

[Workshop Publications](#)

RSS 2024 **LaNMP: A Language-Conditioned Mobile Manipulation Benchmark for Autonomous Robots**
TaskSpec

DGR A Jaafar, S Sundara Raman, **Y Wei**, SE Juliani, A Wernerfelt, I Idrees, JX Liu, S Tellex
Robotics: Science and Systems (RSS) 2024 Workshop on Robotic Task Specification
Robotics: Science and Systems (RSS) 2024 Workshop on Data Generation for Robotics

Industry Experience

Aug. 2020 – **Duyun Consulting Co., Ltd, Shenzhen, China**

Aug.2021 ○ Led a five-person team that built an app that streamlines the process of starting a company, using React / Typescript as frontend and Django Rest Framework as backend.

Services

[Teaching Assistant at Tufts University](#)

Fall 2020 **CS 15: Data Structures**

Fall 2019 **EN 1: Intro to Computational Design**