Pengyuan Wei

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Summary

I am a motivated PhD student with a great passion for research in robot learning, at the University College London, in the Department of Computer Science and the Robotics Institute. I received my bachelor's degree at Beijing University of Chemical Technology in 2021, a major in Mechanical Automation; and my master's degree at the University of Bristol in 2022, a major in Bio-robotics. In my previous experience working at the R&D Department of Beijing Creative Distribution Automation Co., Ltd, I have successfully transferred my theoretical knowledge of computer science to practical implementation, such as programming, code reviewing, testing, and maintaining. Importantly, I earned a profound understanding of collaborative working.

Education

Beijing University of Chemical Technology - Beijing | Bachelor of Engineering
Mechanical Automation, July. 2021

- Grade Arithmetic Average: 85%

University of Bristol - Bristol | Master of Science
Bio-robotics, September. 2022

- Grade Arithmetic Average: 70%

University College London - London | Doctor of Philosophy
Computer Science. 2026

Experience

TECHNOLOGY INTERN | 07/2019 - 09/2019
R&D Department of Beijing Creative Distribution Automation Co., Ltd - Beijing, China

- Determined current and technology needs by consulting with staff on current work systems, planning and implementing system upgrades.
- Determined priorities for system development, maintenance, and operations to ensure maximum efficiency.
- Directed integration of technology operations including operating systems, communications, software applications and data processing.
- Identified, addressed and either resolved or escalated project issues.
- Defined scopes, managed resources, and oversaw schedules in line with stakeholder and project owner specifications.

Selected Presentations and Publications

- Master Dissertation: Multimodal Perception Based Robot Learning for Dexterous Bimanual Manipulation (2022)
- Bachelor Dissertation: Robot Motion Planning based on Deep Reinforcement Learning (2021)
- Wei, Pengyuan. "Exploration-Exploitation Strategies in Deep Q-Networks Applied to Route-Finding Problems." Journal of Physics: Conference Series. Vol. 1684. No. 1. IOP Publishing, 2020.
- Chinese Patent. "Equipment for detecting SCR catalyst by using machine vision" (Patent No: 2019203686177). Robot Laboratory of International Education College, Beijing University of Chemical Technology.

Extracurricular Activities

- The EPSRC project: Swarm Social Sound Modulators (Feb 2023 - 2026)
- Robot fish for water quality monitoring (Oct 2021 - May 2022)
- Participated in AINIT 2020 and gave an oral presentation of the paper (2020)
- Participated in Contemporary Undergraduate Mathematical Contest in Modeling (2020)
- Participated in the 2019 China Robot Skills Competition and won the second prize (2019)
- Participated in the 2019 China Robot Skills Competition and won the third prize (2019)
- Participated in the program of Dr. Ramón González Sánchez: Mobile Robots-Mobility and Machine Learning (2018)

Honours and Awards

- July 2020 Quality Development Competition Award
- June 2021 National Third-class Scholarship

Core Qualifications

- Reinforcement Learning
- Deep Reinforcement Learning
- Python Projects
- C and C++ Projects
- Arduino Projects
- Engineering drawing