# YUHUI CHEN

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#### **RESEARCH INTERESTS**

Reinforcement learning, Robot learning, Foundation models, Generative Models

### **EDUCATION**

Sep 2022–Jun 2027 Chinese Academic of Science, Institution of Automation

Beijing, China

Ph.D degree

Research focus: deep reinforcement Learning, robot learning, and generative models,

Advised by Prof. Dongbin Zhao and Haoran Li

Jun 2020–Jun 2022 Australian National University

Canberra, Australia

Upper Second Class Honours Bechalor Degree

Major in Electronics and Communication, GPA: 4.0/4.0

Sep 2018–Jun 2020 Beijing Institute of Technology

Beijing, China

Bechalor Degree, Honor Graduate, GPA: 3.3/4.0

Major in Information Engineering, GPA: 3.3/4.0

#### **PUBLICATIONS AND PREPRINTS**

Jul 2024 TeViR: Text-to-Video Reward with Diffusion Models for Efficient Reinforcement Learning

**Chen Yuhui**, Li Haoran, Jiang Zhennan, Wen Haowei, and Zhao Dongbin

Under Review, submitted to IEEE TSMC

Sep 2024 Generalizing Consistency Policy to Visual RL with Prioritized Proximal Experience Regularization

Li Haoran, Jiang Zhennan, Chen Yuhui, and Zhao Dongbin

Neural Information Processing Systems (NeurIPS) 2024, Full paper, Poster

May 2024 Boosting continuous control with consistency policy

Chen Yuhui, Li Haoran, and Zhao Dongbin

Autonomous Agents and Multi-Agent Systems (AAMAS) 2024, Full paper, Oral Speech

## RESEARCH AND WORK EXPERIENCE

Oct 2021 – Mar 2022 Dajiang Innovations.

Shenzhen, China

MCU embedded engineer in R&D Center, Flight Dept.

Developed drivers for chips using I2C, SPI, and other protocols, including charging chips, Hall joysticks, and IMUs.

Developed an RTOS-based embedded system to meet business requirements.

Design an arbiter that mimics RTOS priority rules to streamline warning prompts for clear logic.

Nov 2020 – Jul 2021 Institute of Automation, Chinese Academy of Sciences

Beijing, China

Research Intern

Developed ROS system on Xavier for upper-level decision making. Developed a RTOS-based system for multi-task handling on a robot. Implemented Yolov3 for armor detection and tracking on Xavier.

Implemented a Kalman filter for real-time multi-sensor data fusion to achieve accurate robot positioning.

#### **Awards**

May 2024 **AAMAS-24 Scholarship [\$1000]** 

ACM Special Interest Group on Artificial Intelligence (ACM SIGAI)

Jun 2022 Xuteli Graduates Award

Beijing Institute of Technology (Top 5%)

Mar 2022 1st prize in RoboMaster University AI Challenge (RMUA) China and 2nd prize in RMUA Global

DJI RoboMaster Organizing Committee and the IEEE International Conference on Robotics and Automation (ICRA)

Jun 2019 Xuteli Scholarship [\$1500]

Beijing Institute of Technology (Top 3%)

# **SKILLS AND INTERESTS**

Programming Python / Pytorch, Jax, Numpy

C/C++, ROS, RViz, Moveit SOLIDWORKS for 3D printing

Language Chinese Mandarin (Native), English (Fluent, 96 of TOEFL in Jun 2021), Chinese Cantonese (Basic)

Hobbies Aerial Photography, FPV drone, Basketball, American Football, Skateboard, Ski

Travel, Mountain Climbing (Summitted 6178 Meters' Yuzhu Peak/Sob Gangri on 12th Jul 2019)