Chen Yang

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The Chinese University of Hong Kong, Shenzhen, China, 518172

Education

The Chinese University of Hong Kong, Shenzhen 09/2022 – Present
Major in Computer Engineering

- Cumulative GPA: 3.85/4.0 (Rank: 5/268 in School of Science and Engineering)
- Research Interests: Robot Learning, Reinforcement Learning, Deep Learning
- Awards & Honors: Creativity and Innovation Award, 2024; Academic Scholarship, 2023 & 2024; Dean's List, 2023 & 2024 & 2025

University of California, Berkeley 08/2024 – 12/2024
Exchange Program

- Cumulative GPA: 4.0/4.0
- Related Courses: Computer Architecture, Artificial Intelligence, Discrete Math (A+)

Research

Humanoid Robot Locomotion Control via Reinforcement Learning 05/2025 – Present
Research Assistant; Supervised by Prof. Ye Zhao and Feiyang Wu
LiDAR Lab, Georgia Institute of Technology

- Aimed to design efficient reinforcement learning algorithms enabling humanoid robots to walk on complex terrains
- Conducted simulations using IsaacLab, optimized observation space and reward design, and designed a Learn-to-Teach training framework, achieving promising results in simulation environments
- Planning to deploy the policy on real hardware and conduct a series of tests in real-world environments

UAV Path Planning and Attitude Control 09/2024 – 12/2024
Research Assistant; Supervised by Prof. Mark M. Mueller and Ruiqi Zhang
High Performance Lab, UC Berkeley

- Aimed to minimize the impact of air on each other drones while cooperating by using reinforcement learning
- Simulated various relative situations of two drones using Pybullet; Realized UAV attitude stabilization even when subjected to strong air current disturbances using the PPO algorithm

Smart Stop Snoring Pillow 09/2023 – Present
Research Assistant; Supervised by Prof. Jian Zhu and Xuanyang Xu
Soft Robotics Lab, CUHKSZ

- Aimed to design and implement a smart pillow to achieve an anti-snoring effect by detecting the user's snoring and adjusting the pillow's height to keep the user's airway clear
- Achieved precise control of the balloon's altitude using Poiseuille's principle to replace the flow meter with two barometers; Built an intermediate layer using ROS, achieving efficient communication between the upper computer and the microcontroller; Implemented Snoring Recognition with Spatio-Temporal Graph Neural Networks
- Submitted to IEEE Transactions on Mechatronics (under review, second author)

Online Multi-Access Scheduling Algorithm for Integrated Space-Air-Ground Networks via Inverse Reinforcement Learning 01/2025 – 05/2025
Undergraduate Thesis; Supervised by Prof. Simon Pun
Space-Air-Ground Laboratory, The Chinese University of Hong Kong, Shenzhen

- Used Gurobi solver to generate expert trajectories from small-scale instances of offline Mixed Integer Programming (MIP) problems
- Designed a hybrid training architecture combining Maximum Entropy IRL with PPO, utilizing expert trajectories

generated by Gurobi to optimize online decision-making and achieve load balancing for HAP (High Altitude Platform)

Internship and Competitions

Shenzhen Research Institute of Big Data 04/2024 – 08/2024
Research Assistant; Supervised by Dr. Yangyang Peng and Dr. Yinjun Shen

- Aimed to achieve efficient and accurate prediction of building loads, providing valuable information for power allocation
- Extracted features using Fast Fourier Transform and constructed an LSTM-T-KAN model for long-term building load forecasting
- Submitted to Applied Energy (under review, second author)

2nd Prize in the Chinese Undergraduate Physics Experiment Competition 07/2024 – 09/2024
Team Leader; Supervised by Prof. Xiaolu Zhuo, Prof. Chaorui Li, and Dr. Edward Chen

- Proposed a real-time synchronous measurement scheme for steady and alternating weak magnetic fields in a double solenoid based on the giant magnetoresistance effect and digital lock-in amplification technology

Activities

Teaching Assistant of Mechanics (PHY 1001) 01/2024 – 05/2024

- Delivered presentation to illustrate physical problems in the tutorial
- Solved problems for students during office hours

Skills

Technologies & Frameworks: PyTorch, Tensorflow, Pybullet, ROS, SIMD/OpenMP, IsaacLab

Programming Languages: Python, C/C++, Matlab, RISCV, Verilog

Languages: English (Fluent), Chinese (Native)