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 – 05/2027
Major in Electrical and Computer Engineering (Expected)

- Cumulative GPA: 3.849/4.0 (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
Visiting Student

- 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 develop efficient reinforcement learning algorithms enabling humanoid robots to walk on complex terrains
- Conducted simulations using IsaacLab, optimized observation space and reward design, and implemented a Learn-to-Teach using rsl_rl, achieving good results in simulation environments
- Planning to switch from Digit to G1, add LiDAR as perception, and conduct a series of tests in real-world environments.

UAV 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 – 08/2025
Research Assistant; Supervised by Prof. Jian Zhu and Xuanyang Xu
Soft Robotics Lab, CUHKSZ

- Designed and implemented a pneumatic robotic pillow that achieves non-invasive snoring mitigation by detecting snoring and adjusting the pillow height to keep the user's airway clear
- Achieved precise height control of the airbag using Poiseuille-based flow modeling with two barometers instead of a flow meter, and built a ROS-based middleware for reliable communication between the upper computer and the microcontroller
- Utilized only built-in pressure sensors to extract breathing and heart-rate signals via frequency analysis, and designed a Transformer–CNN multi-task network to jointly recognize posture, snoring, and apnea events; 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

Dexforce 12/2025 – Present
Research Intern

- Responsible for developing Vision-Language-Action (VLA) agents
- Built testing benchmarks for evaluation

Shenzhen Research Institute of Big Data 04/2024 – 08/2024
Research Intern; 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 IEEE Transactions on Neural Networks and Learning Systems (under review, second author)

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

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
- Submitted team paper to Physics Experiment journal

Skills

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

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

Languages: English (Fluent), Chinese (Native)