

Yuxing Wang

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EDUCATION

TSINGHUA UNIVERSITY

2020.08-2023.06

- M.Eng. in Electronic and Information Engineering
- Cumulative GPA: **3.89/4.00**, Rank: **2/45**

SOUTHWEST MINZU UNIVERSITY

2016.09-2020.06

- B.Eng. in Communication Engineering with Highest Honors
- Cumulative GPA: **3.86/4.00**, Rank: **1/145**

PUBLICATIONS & PREPRINTS

- **Y Wang**, S Wu, T Zhang, Y Chang, H Fu, Q Fu, X Wang, PreCo: Enhancing Generalization in Co-Design of Modular Soft Robots via Brain-Body Pre-Training, *submitted to Conference on Robot Learning 2023*, 2023.06
- **Y Wang**, S Wu, H Fu, Q Fu, T Zhang, Y Chang, X Wang, Curriculum-based Co-design of Morphology and Control of Voxel-based Soft Robots, *International Conference on Learning Representations 2023*, 2023.01
- T Zhang, Z Lin, **Y Wang**, D Ye, Q Fu, X Wang, X Li, Dynamics-Adaptive Continual Reinforcement Learning via Progressive Contextualization, *IEEE Transactions on Neural Networks and Learning Systems*, **JCR Q1, IF=14.255**, 2022.08
- **Y Wang**, T Zhang, Y Chang, X Wang, B Yuan, A Surrogate-Assisted Controller for Expensive Evolutionary Reinforcement Learning, *Information Sciences*, **JCR Q1, IF=8.233**, 2021.12
- **Y Wang**, B Yuan, From Big Data Based Price Discrimination to Privacy Leakage: Ethical Analysis and Reflections on Privacy Issues from the Perspective of Hardware and Software, *Science Economy Society (Chinese)*, 2021.10
- **Y Wang**, Y Jiang, A Weighted Minimum Distance Classifier Based on Relative Offset, *IEEE 4th International Conference on Cloud Computing and Big Data Analysis*, 2019.04

RESEARCH EXPERIENCE

2022.09-2023.04 Research Intern: Quality-Similarity Diversity Optimization for Generating User-Preferred Game AI

Tencent AI Platform Department Funded by Tencent Rhino-Bird Research Elite Program

- Built a universal tool for quality-similarity diversity optimization, capable of generating task-specific diversity for Game AI using a set of user-specified behavior descriptors; Applied this tool to a variety of games such as Atari 2600 and “Auto Chess”.

2022.04-2022.08 Research Intern: Brain-Body Co-Design for Modular Soft Robots

Tencent AI Lab Funded by Tencent Rhino-Bird Research Elite Program

- Constructed an efficient Curriculum-based Co-design method (CuCo) for Voxel-based Soft Robots (VSRs); Established a benchmark named ModularEvoGym that provides modular design and state-action spaces for designing and controlling 2D VSRs.

2020.01-2021.12 Project: Human versus Machine Intelligence

Tsinghua University Funded by Natural Science Foundation of China

- Constructed distributed Deep Q Networks (DQNs) and Evolutionary Strategies (ES) for training RL agents; Established the overall training framework; Expert-level players were defeated by our proposed agent model.

2018.08-2019.12 Project: A Wearable Hand Rehabilitation Robot

Southwest Minzu University Funded by National Undergraduate Training Program of Innovation & Entrepreneurship

- Built a wearable hand rehabilitation robot to assist patients in performing rehabilitation exercises, such as finger flexion and extension; Fabricated the robot via 3D printing; Debugged the circuit; Established a web server for collecting data.

2017.06-2018.06 Competition: International Underwater Robot Competition, 2D Simulation League

Southwest Minzu University-Peking University Joint Underwater Robot Lab

- Developed control strategies for 2D simulated fishes using C#; Lead the group to win First Prize in IURC 2017 and IURC 2018.

Academic Service (Reviewer): *TNNLS, INFORMATION SCIENCES, IEEE ACCESS, NIPS 2023*

AWARDS AND SCHOLARSHIPS

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| • National Scholarship | 2017-2019 |
| • First Prize, International Underwater Robot Competition | Jul. 2017 |
| • Honorable Mention, Mathematical Contest in Modeling | Apr. 2018 |
| • First Prize in Central and Southwestern China Division, “TI Cup” National Undergraduate IOT Design Contest | Aug. 2018 |
| • Bronze Award, National College Student Curricular Academic Science and Technology Works Competition | Mar. 2019 |
| • Outstanding Graduate of Sichuan Province | Apr. 2020 |
| • 《PEOPLE’S DAILY》 Representative List of National Scholarship Winners for Undergraduate Students | Apr. 2020 |
| • Tencent Rhino-Bird Research Elite Program | May. 2022 |

ACTIVITIES / SKILLS

- *Activities*: Teaching assistant of “Data Mining” and “Ethics of Artificial Intelligence” (THU), Fall 2021.
- *Skills*: Python, Torch, TensorFlow, Latex, Linux, C++ and MS Office Suite; Teacher Qualification Certificate (Junior High School).