DU WEIHUA

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✉ 103B, Building 2, Zijing Apartment, Tsinghua University 📍 Beijing, China

EDUCATION

Undergraduate in Computer Science and Technology
IIIS, Tsinghua University

📅 Sep. 2020 – Jun. 2024 (estimated) 📍 Beijing, China

- GPA 3.928 / 4.000;
- IIIS is short for Institute for Interdisciplinary Information Sciences (a.k.a. "Yao Class");
- Achieve A+ in eight courses, including Algorithm Design, Abstract Algebra, Theory of Computation, Computer Vision, Natural Language Processing, etc.;
- All courses (12 courses / 43 credits) in the core discipline group are full marks (4.0).

Senior High Student
Changzhou Senior High School of Jiangsu Province, Jiangsu

📅 Sep. 2017 – Jul. 2020 📍 Jiangsu, China

- Gold medal of the 2018 National Olympiad in Informatics (NOI).

PROJECTS

Summer Intern – LLM Fine-Tuning
Shanghai AI Lab

📅 Aug. 2023 – Ongoing 📍 Shanghai, China

- Description: Fine-tune LLMs to learn API recognition, complex instruction adherence, planning, summarization, and reflection.

Spring Research – Embodied AI
MIT-IBM lab, Massachusetts Institute of Technology

📅 Feb. 2023 – Jul. 2023 📍 Boston, US

- Description: Explore large language models' ability to reason in embodied environments;
- Two papers are submitted to ICLR2024.

AI+x Project – Reinforcement Learning for Automatic Truss Design
Institute for Interdisciplinary Information Sciences, Tsinghua University

📅 Sep. 2022 – Jan. 2023 📍 Beijing, China

- Description: Using MCTS to design truss layouts and refining the layouts with deep reinforcement learning;
- Our two-stage method outperforms the baseline algorithm used in both 2D and 3D architecture design testbed;
- Co-first author, and the paper "Automatic Truss Design with Reinforcement Learning" is accepted by IJCAI2023.

Summer Research – Reinforcement Learning Diversity
Institute for Interdisciplinary Information Sciences, Tsinghua University

📅 Jul. 2022 – Oct. 2022 📍 Beijing, China

RESEARCH INTERESTS

- Embodied AI
- Reinforcement Learning
- Nature Language Processing

STRENGTHS

- Main Development Languages
  - Python C / C++ Pascal
  - LaTex Pytorch

LANGUAGES

- Chinese: Native Speaker.
- English: TOEFL 103; GRE 321.

OTHERS

- Member of Tsinghua University Volleyball Team.
- Volunteer at the Student Development Center of Tsinghua University.

- Description: Using Wasserstein distance as an auxiliary loss to guide RL algorithm to form diverse strategies;
- Achieving reasonable performances in many environments such as GridWorld, Mujoco, and SMAC;
- Second author, and the paper "Iteratively Learn Diverse Strategies with State Distance Information" is accepted by NeurIPS2023.

Winter Internship - Autonomous Driving
Perceptron, MEGVII

📅 Jan. 2021 – Feb. 2021   📍 Beijing, China

- Description: Analysis of modern AI Algorithms for lane line detection from in-car cameras.

PRIZES

China Collegiate Programming Contest (CCPC, Weihai station)
Gold medal, rank 5

📅 Nov.2021   📍 Weihai, China

Yao Class Scholarship
Yao Award - Nomination Award

📅 Sep. 2023   📍 Beijing, China

Tsinghua University Scholarship
Friends of Tsinghua - Mr. and Mrs. Qu Yuzhi Scholarship

📅 Nov. 2022   📍 Beijing, China

Tsinghua University Scholarship
Friends of Tsinghua - Mr. and Mrs. Huang Yicong Scholarship

📅 Nov. 2021   📍 Beijing, China