

HANG ZHAO

(0086) · 18810370018 ◊ alexfrom0815@gmail.com ◊ <https://alexfrom0815.github.io/>

SELF INTRODUCTION

This is Hang Zhao, 24 years old. I am a fourth-year computer science doctoral student. My research interest is reinforcement learning (RL) and solving combinatorial optimization problems.

EDUCATION

Nanjing University, LAMDA Group *June 2021 - Now*
Visiting student in Prof. Yang Yu's group

National University of Defense Technology *June 2019 - Now*
Research Assistant in Prof. Kai Xu's group

Linkoping University *May 2018 - June 2018*
Exchange Student in Summer School Project.

Beijing Institute of Technology *Sept. 2015 - June 2019*
B.S. in Electronic Information Engineering
GPA (overall): 88.58/100, 3.8/4.0 Rank: 3/60

PUBLICATION

Hang Zhao, Zherong Pan, Yang Yu and Kai Xu. 'Learning Physically Realizable Skills for Online Packing of General 3D Shapes', ACM Transactions on Graphics.

Hang Zhao, Yang Yu and Kai Xu. 'Learning Efficient Online 3D Bin Packing on Packing Configuration Trees', ICLR 2022.

Hang Zhao, Chenyang Zhu, Xin Xu, Hui Huang and Kai Xu. 'Learning Practically Feasible Policies for Online 3D Bin Packing', Science China Information Sciences.

Hang Zhao, Qijin She, Chenyang Zhu, Yin Yang, and Kai Xu. 'Online 3D Bin Packing with Constrained Deep Reinforcement Learning', AAAI 2021.

Lintao Zheng, Chenyang Zhu, Jiazhao Zhang, **Hang Zhao**, Hui Huang, Matthias Niessner, and Kai Xu. 'Active scene understanding via online semantic reconstruction', Computer Graphics Forum.

RESEARCH EXPERIENCE

LAMDA Group, Nanjing University, Supervisor: Prof. Yang Yu and Prof. Kai Xu
Project 1: Demonstration Policy Reconstruction in Unseen Scenarios. *Dec. 2023 - May 2023*

- Method deployment on robot scenarios, code completion, experiment, and result analysis.
- Paper writing, plotting, and video edition.

LAMDA Group, Nanjing University, Supervisor: Prof. Yang Yu and Prof. Kai Xu
Project 2: Packing Arbitrarily-Shaped Objects with Physical Constraints. *Mar. 2022 - Nov. 2022*

- Completed the project by only a single student author.

LAMDA Group, Nanjing University, Supervisor: Prof. Yang Yu and Prof. Kai Xu
Project 3: Solving Online 3D BPP in Continuous Domain. *June 2021 - Dec. 2021*

- Completed the project independently.

iGRAPE Lab, NUDT, Supervisor: Prof. Xin Xu, Prof. Kai Xu

Project 4: Packing Algorithm Improvement for Robot Implementation

Dec. 2020 - Apr. 2021

- Literature investigation, packing algorithm improvement, and code completion.
- Real robot packing scenario realization along with method evaluation.
- 3D result visualization, paper writing and submission, and the rebuttal.

iGRAPE Lab, NUDT, Supervisor: Prof. Kai Xu

Project 5: Online 3D Bin Packing Problem

Sept. 2019 - Oct. 2020

- Literature investigation, problem formulation, algorithm design, and code completion.
- Parameter refinement and RL agent training.
- Dataset preparation, baseline implementation, experiment, and result analysis.
- Simulation scenario construction and further evaluation.
- 3D result visualization, video edition, paper writing, and the final submission.

iGRAPE Lab, NUDT, Supervisor: Prof. Kai Xu

Project 6: Indoor Navigation with DRL

Dec. 2018 - May 2019

- Navigation simulator investigation, demo data collection, baseline implementation, and video edition.

AWARDS & HONORS

Lindi Scholarship		30,000 yuan
National Scholarship		Top 2%
84781 Scholarship		Top 5%
The First Prize Scholarship	Four times	Top 5%
Outstanding Graduates of Beijing		Top 2%
Excellent Student Cadre		Top 5%
Excellent Student	Three times	Top 10%
Outstanding Graduates		Top 10%
BIT Mathematical Modeling Competition Ranking No. 1		Top 0.12%
TI Cup Electronic Design Competition First Prize		Top 5%
CUMCM Beijing Division First Prize		Top 10%
MCM Honorable Mention		Top 30%

TECHNICAL STRENGTHS

Computer Languages	Python, Lua, L ^A T _E X, C, C++, Matlab, Assembly language
Tools	Pycharm, VS Code, V-rep, Meshlab, Depth Exploration, Pytorch, TensorFlow2 , Adobe Premiere

PROFESSIONAL COURSES

Machine Learning, Computing Geometry, Computer Vision, Computer Graphics, English Scientific Paper Writing, Practice of Deep Learning Method, Artificial Intelligence, Computer Principle and Application, CPU and Assembly Language, Software Engineering, Computer Operating System, Information Theory and Encoding, Information Network Technology, Probability and Mathematical Statistics, Linear Algebra, C Language, Object-Oriented Programming, Data Structure and Algorithms Design (c++), Digital Circuit, Analog Circuit, Signals and Systems, Digital Signal Processing, Electromagnetic field theory, Random Signal Analysis.