YUDA FAN

mistergalahad@gmail.com ⋄ Homepage

EDUCATION

Shanghai Jiao Tong University   *Sep. 2016 - Jun. 2020*
Bachelor of Engineering in Computer Science, ACM Honor Class
GPA: 3.92/4.30, 90.3/100 (Rank 6/38)

ETH Zürich   *Sep. 2021 -*
Master of Science in Computer Science, D-INFK
Direct Doctorate Program in Computer Science

RESEARCH EXPERIENCE

MVIG, Shanghai Jiao Tong University   Jul. 2018 - Jun. 2020
Research Assistant to Prof. Cewu Lu   *Shanghai, China*

· **CyberPanda: A Universal Robotic Arm Simulator Towards Photorealistic Visual Perception**: Propose a novel universal robotic arm simulator with photorealistic visual feedback;
Integrate the remote procedure call system, rendering pipeline and physics engine in the platform. Empower users to construct scene, collect data and conduct simulation. *Undergraduate Thesis*

· **3D Real Embodied Dataset and Transferable Active Grasping**: Based on the previous work, improve the viewpoint optimization stage to overcome the sparse reward in grasping problem, getting more reliable grasping algorithm and better success rate. *ICRA 2020*

Visiting Students, University of Illinois at Urbana-Champaign   Sep. 2019 - Dec. 2019
Research Assistant to Prof. Bin Hu   *Urbana, IL*

· **Efficient Estimation of Lipschitz Constant of Recurrent Neural Networks**: Employ semidefinite programming to efficiently estimate the upper bound of Lipschitz Constant of RNNs.

Meituan - Sankuai Technology Co., Ltd.   Jul. 2020 - Feb. 2021
System Architecture Group   *Beijing, China*

· **AutoVision**: A platform to automatically conduct neural architecture search, model compression and hyperparamters optimization.

· **Memory-Efficient Neural Architecture Search**: Propose a training scheme to eliminate the performance collapse in memory-efficient fashion. *Awarded with the highest level patent in 2020 Q4.*

PUBLICATIONS

Xiangyu Chen*, Zelin Ye*, Jiankai Sun, **Yuda Fan**, Fang Hu, Chenxi Wang, and Cewu Lu, *Transferable Active Grasping and Real Embodied Dataset, ICRA 2020.*

Xiaoxing Wang*, Xiangxiang Chu*, **Yuda Fan**, Zhexi Zhang, Junchi Yan, *ROME: Robustifying Memory-Efficient NAS via Topology Disentanglement and Gradients Accumulation, ICCV 2023*

SELECTED INTERESTING PROJECTS

CS492: Reinforcement Learning
Prof. Zhihua Zhang

Jun. 2019

Shanghai, China

· **Fight with Landlord**: Combine hand decomposition module and Hierarchy Reinforcement Learning to learn the subgoals of card games.

MS208: Compiler Design and Implementation
Dr. Rong Ma

Jun. 2018

Shanghai, China

· **Mx* Compiler**: Designed a compiler implemented in Java from scratch, translating **Mx*** code into x64-nasm code.
· Implemented optimizations for the compiler, faster than gcc O1 on elaborated test set.

MS110: Operating System
Prof. Alei Liang

Jun. 2018

Shanghai, China

· **NachOS**: Implemented the whole kernel of a UNIX operating system, including threads, file system, network, virtual memory, etc.
· 96/100, Rank: 8/41.

AWARDS & HONORS

Outstanding Graduate of Shanghai Jiao Tong University *Jul. 2020, SJTU*

2016-2018 The First Prize Scholarship: Top 5% of SJTU

2017 Rong Chang Scholarship: Top 0.02% of Shanghai Jiao Tong University *Oct. 2017, SJTU*

1st Runner Up, ACM-ICPC 2017-2018 Hua-Lien Regional Contest *Nov. 2017, Taiwan*

1st Runner Up, ACM-ICPC 2021-2022 Swiss Subregional, Individual *Nov. 2021, Zürich*

Gold Medal 19th place, ACM-ICPC 2017-2018 Asia ECL Final *Dec. 2017, Shanghai*

Gold Medal 6th place, ACM-ICPC 2017-2018 Xi'an Regional Contest *Oct. 2017, Xi'an*

Gold Medal 9th place, ACMICPC 2016-2017 Myanmar Regional Contest *Dec. 2016*

Gold Medal 9th place, CCPC 2017 Hangzhou Regional Contest *Nov. 2017*

Gold Medal 7th place, ACM-ICPC 2016-2017 Xi'an Invitation Contest *May. 2017*

COMMUNITY SERVICE

Problem Setter: CCF NOI 2019, CCPC 2018, ICPC EC Final 2021 *2018-2022*

Competitive REL Judge: Pro tour Bacelona, Preliminary PTQ, Regional PTQ *2023*

TEACHING EXPERIENCE

Lecturer & TA   **CS477 Combinatorics (Spring 2020)**

PROGRAMMING PROFICIENCY

C#, Swift, Rust, Python

LANGUAGE PROFICIENCY

Wu, Mandarin: Native
English, Japanese: Fluent