

# Haoran Dang (党浩然)

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## EDUCATION

- **Institute of Computing Technology, Chinese Academy of Sciences** 2022-09 ~ Present  
M.Eng. Student in Electronic Information Supervisor: Prof. Dongrui Fan GPA: 3.81/4 Beijing, China  
Also a student of University of Chinese Academy of Sciences, where the degree is to be conferred.
- **ShanghaiTech University** 2018-09 ~ 2022-06  
B.Eng. in Computer Science and Technology GPA: 3.50/4 Rank in major: 55/194 (28.4%) Shanghai, China

## RESEARCH & PROJECTS

### -Publications

- H Dang, M Wu, M Yan, X Ye, and D Fan, “**GDL-GNN: Applying GPU Dataloading of Large Datasets for Graph Neural Network Inference**,” accepted by *Euro-Par 2024*.
- H Dang, C Ye, Y Hu, and C Wang, “**NobLSM: An LSM-tree with Non-blocking Writes for SSDs**,” *DAC 2022*.
- D Wang, M Yan, Y Teng, D Han, H Dang, X Ye, and D Fan, “**A Transfer Learning Framework for High-accurate Cross-workload Design Space Exploration of CPU**,” *ICCAD 2023*.

### -Research

- **Lab of Graph Intelligent Machine (GIMLab)** HTCRC, ICT, CAS 2021-12 ~ Present  
Director: Assoc. Prof. Mingyu Yan Beijing, China
  - Conducted research to accelerate GNN inference on multi-GPU platforms, developed and implemented an optimized GPU dataloading method based on partition, achieving a 59.9% performance improvement over baseline. (cf. GDL-GNN)
  - Developed an undergraduate FYP on optimizing GNN training, halving training times by implementing a multithreaded data loader across various GPUs. Awarded the SIST Outstanding Thesis.
- **Toast Lab** SIST, ShanghaiTech 2021-07 ~ 2022-02  
PI: Assist. Prof. Chundong Wang Shanghai, China
  - Designed and implemented NobLSM’s database component, using a modified ext4 interface to delay file deletions and minimize costly syncs. Demonstrated enhanced performance via benchmarking against SOTA LSM-trees. (cf. NobLSM)
- **Attitude Research Lab (ARLab)** SEM, ShanghaiTech 2020-09 ~ 2021-09  
PI: Assoc. Prof. Lifeng Yang Shanghai, China
  - Participated in preparation of the book *Ethics and Morality in Information Science and Technology*. Provided suggestions on selecting publishing houses and participated in writing example chapters.

### -TEACHING

- **Operating System I (TA)** ShanghaiTech Fall, AY 2021 ~ 2022

## SKILLS

- **Programming Languages:** C/C++, Python, Shell, Verilog
- **Tools & Frameworks:** PyTorch,  $\LaTeX$ , Jekyll
- **Languages:** Mandarin Chinese (native), English (fluent)
  - **TOEFL iBT** Score: 107 (Reading: 29, Listening: 27, Speaking: 23, Writing: 28) 2024-04
  - **GRE General Test** Score: 328 (Verbal: 158, Quantitative: 170, Analytical Writing: 4) 2022-08
  - **College English Test Band 6** Score: 572 (Listening: 198, Reading: 211, Writing: 163) 2021-06

## CERTIFICATES & AWARDS

- **2022 SIST Outstanding Thesis** (for final year project) ShanghaiTech 2022-06
- **Excellent Individual of Industrial Practice in Class of 2018** ShanghaiTech 2021-06
- **Excellent Individual of Social Practice in 2019** ShanghaiTech 2019-11

VOLUNTARY SERVICE

• <b>20th Public Science Day of ICT, CAS</b>	Remote camera operator.	ICT, CAS	2024-05
• <b>“Sunflower Activity” - Haidian Hospital Volunteers</b>	Assistant in Service Center	ICT, CAS	2023-12
• <b>2020 Freshmen Enrollment</b>	Guidance in baggage claim of postgraduate students.	ShanghaiTech	2020-09
• <b>2020 Campus Opening Day</b>	Participated in device check and exam download.	ShanghaiTech	2020-07
• <b>2019 Admission Consultation</b>	Participated in admission consultation in Beijing.	ShanghaiTech	2019-06