YUCHEN WANG

wangyuchen333@stu.pku.edu.cn ◇ https://wangyuchen333.github.io/

EDUCATION EXPERIENCES

Peking University, Electrical Engineering and Computer Science 2021 - 2025(expected)

Undergraduate,*Bachelor of Science* *GPA(Yr1 84.70 Yr2 88.44 Yr3 87.61)* *Rank 30%(8/31)*

SELECTED AWARDS

Zhi Class Scholarship 2023 (Top 5%)
Outstanding Academic Achievement Award 2023 (Top 10%)
Zhi Class Scholarship 2024 (Top 5%)

SELECTED PROJECTS

- ***Investigating Prompts for PointCLIP V2***
  Code | Publication
  This research delves into the factors behind PointCLIP V2's superior performance on various tasks, with a focus on the role of prompt searching. The study examines how advanced Large Language Models (LLMs) can enhance prompt-image alignment within CLIP. A significant finding is that more capable LLMs do not guarantee improved outcomes; rather, the effectiveness of prompts critically depends on the selection of relevant images, underscoring the importance of a comprehensive search process.

- ***Fast Simulation of Mass-Spring Systems***
  Code | Publication
  Presents an efficient method for rapidly and stably simulating mass-spring systems using an accelerated solver based on block coordinate descent. This approach achieves higher frame rates, delivering results visually on par with real-time simulations while maintaining the stability of the implicit Euler method at a reduced computational cost.

- ***Seismic Phase Picking***
  Code | Report
  Seismic phase picking, crucial for earthquake monitoring, aims to determine the arrival times of P- and S-waves from seismic waveforms. While manual phase picking is reliable, the growing number of global stations and seismic monitors makes it increasingly difficult for humans to manage comprehensively. This work explores various automatic phase picking methods, including traditional and learning-based approaches.

- For insights into my recent academic readings, visit Paper Readings repository.

ACADEMIC SERVICES

Advised by Prof. Di He and Prof. Liwei Wang from Peking University *2023.9 - 2024.4*

- **Explore Model Merging for Large Language Models.**
- **Investigate the Understanding of In-Context Learning for Large Language Models.**

Advised by Prof. Difan Zou from The University of Hong Kong *2024.7 - present*

- **Discover the Effect of the MLP in Transformers.**
- **Examine Collapse Errors Induced by Deterministic Samplers in Diffusion Models.**

SKILLS

Programming Languages: Python; Pytorch; C; C++; LaTeX
Standard test scores: TOEFL: 98, CET6: 590