

JINGZHE SHI

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Github: <https://github.com/JingzheShi>

EDUCATION BACKGROUND

No.2 High School of East China Normal University

Sep. 2018 - Jun. 2021

- Top student in the Class of Fundamental Science

Yao Class, IIIS, Tsinghua University

Sep. 2021-Present

- Recommended to Yao Class due to extraordinary performance in physics competition
- Cumulative GPA : 3.85/4.0, Specialized GPA: 3.90/4.0

Jacobs School of Engineering, UC San Diego

Feb. 2024 - Jun. 2024

- Visiting Scholar, advised by Xiaolong Wang

HONORS AND AWARDS

Recipient of First-Class Freshmen Scholarship of Tsinghua University

Gold Medal winner in the 51st International Physics Olympiad (IPhO 2021), **ranking 10th globally**

RESEARCH EXPERIENCE (CURRENTLY PUBLICLY AVAILABLE WORKS ONLY)

(* for equal contribution)

Large Trajectory Models are Scalable Motion Predictors and Planners

Aug. 2023 - Oct. 2023

*Qiao Sun, Shiduo Zhang, Danjiao Ma, **Jingzhe Shi**, Derun Li, Simian Luo, Yu Wang, Ningyi Xu, Guangzhi Cao, Hang Zhao*

- ArXiv link: <https://arxiv.org/abs/2310.19620>.
- Leveraging successful backbones in NLP for trajectory prediction, demonstrating scalability on diverse datasets and achieving state-of-the-art performance on NuPlan dataset
- Personal Contribution: Responsible for the decoder part. Utilize DDPM to generate trajectory in Key Point Space to capture multi-modal distribution of future trajectories.

CHOPS: CHat with custOMer Profile Systems for Customer Service with LLMs

Sep. 2023 - Feb. 2024

Jingzhe Shi, Jialuo Li, Qinwei Ma, Zaiwen Yang, Huan Ma, Lei Li

- Accepted by COLM 2024 (the 1st Conference on Language Modeling, acceptance rate: 28.8%). ArXiv link: <https://arxiv.org/abs/2404.01343>.
- Proposing an agent-based architecture for leveraging large and small LLMs in Customer Service, providing effective performance/cost trade-off.
- Proposing a Dataset with Database, APIs, guiding files and QA pairs for Customer Service collected from CPHOS, a real-scenario of online Physics Olympiad.

Scaling Law for Time Series Forecasting

Jan. 2024 - May. 2024

*Jingzhe Shi**, *Qinwei Ma**, *Huan Ma*, *Lei Li*

- Preprint, under review. ArXiv link: <https://arxiv.org/abs/2405.15124>.
- Proposing Scaling Law for Time Series Forecasting from both theoretical and experimental perspective. Taking into account the impact of look-back context length.
- Showing both theoretically and empirically that long context length may hurt performance in TSF.
- Personal Contribution: Responsible for a rough theoretical framework and all the experiments.

WORK EXPERIENCE

Shanghai Qi Zhi Institute

Aug. 2023 - Sep. 2023

Research Intern, Advised by Hang Zhao

- Work on state transformers for trajectory prediction supported by computational resources at the institute.

CPHOS

Dec. 2020 - Present

Co-founder, former tech group leader, council member

- Website: <https://cphos.cn>.
- An academical nonprofit organization dedicated to providing Physics Olympiad simulations 4-5 times per year for high school contestants for free through an online platform.
- Founded in the late 2020 by a group of 10 (including myself), now with 100+ members, mainly from top universities in China. 1000+ students from 200+ high schools participate in most Olympiads held by CPHOS.
- Personal Contribution: Led the tech group to develop tools supporting online Olympiads, including an LLM-based Replyer for Customer Service (**which developed into the CHOPS research project accepted by COLM later**), etc.