Jialuo Li

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Education

Yao Class, Institute for Interdisciplinary Information, Tsinghua University 09/2021 – present

Bachelor of Engineering in Computer Science and Technology.
Overall GPA: 3.84/4.00

Awards and Honors

Competitive Physics

1st Prize in National High School Physics Olympics Competition (10th place) 11/2020
Member of Chinese team at the 24th Asian Physics Olympiad (APhO) 02/2021 -- 05/2021

Honors

Social Worker Merit Scholarship of Tsinghua 10/2022
Social Worker Merit Scholarship of Tsinghua 10/2023

Publications and Manuscripts

(* stands for equal contribution.)
[1] **(COLM 2024)** Jingzhe Shi, **Jialuo Li**, Qinwei Ma, Zaiwen Yang, Huan Ma, Lei Li. "CHOPS: CHat with custOmer Profile Systems for Customer Service with LLMs"
[2] **(Under review)** Yecheng Wu, Zhikai Zhang, Haofeng Huang, Chuan Liu, **Jialuo Li**, Yun Liu, Li Yi. "RoTrack: Robust Physics-Based Character Motion Tracking via Generalizable Denoising"

Experience

Research on robust physics-based character motion tracking 09/2023 – present

Undergraduate Research Assistant, Supervised by Li Yi, Tsinghua

- Develop a novel framework which incorporates a data-driven motion refiner and a physics-driven multi-step co-controller to handle various noise patterns in motion tracking.
- Demonstrate our framework outperforms existing tracking methods in robustness and accuracy through extensive evaluation on motions from kinematic motion synthesis models, noisy motion capture datasets, and artificial noise scenarios.

Research on design of profile systems for customer service with LLMs 09/2023 – 05/2024

Student Research

- Investigate the integration of LLMs like GPT-4 and GPT-3.5 in customer service systems to access and interact with user information based on existing databases and guiding files.
- Develop a novel architecture, CHOPS, which employs a Classifier-Executor-Verifier system to improve accuracy and operational safety while reducing computational costs.

Research on physics reasoning capability in text-to-image diffusion model 02/2024 – present

Undergraduate Research intern, Supervised by Saining Xie, NYU

- Detect the physics anomalies in the current state-of-the-art image generative models which involving identifying inconsistencies or deviations from physical laws and principles within the generated images.
- Systematically gather diverse and representative datasets, followed by developing algorithms that can effectively manage and mitigate issues such as overfitting during training.

Skills

Languages: Python, Pytorch, C++
Leadership: Class monitor of Yao Class from 2022 to 2023, president of the IIIS Student Union Organization Group from 2022 to 2024