Qiao Sun

Shanghai, China

https://github.com/larksq
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EDUCATION

Washington University in St. Louis   Missouri, US

Master of Engineering, Robotics (Software and Controls) (GPA: 3.9)   2019-2021

EMPLOYMENT

Shanghai QiZhi Institue - MARS Lab (Tsinghua University)   Shanghai, China

Research Assistant   2021-

TECHNICAL SKILLS

Programming and Simulation: Python, C++, Objective-C, Java, ROS, Gazebo, RViz

Machine Learning: Pytorch, Tensorflow, Keras, AWS (SageMaker, RoboMaker, IoT, EC2, S3)

Others: Matlab+Simulink, Git, Docker, Pandas

PUBLICATIONS

[1] **Qiao Sun**, Shiduo Zhang, Danjiao Ma, Jingzhe Shi, Derun Li, Simian Luo, Yu Wang, Ningyi Xu, Guangzhi Cao, Hang Zhao. Large Trajectory Models are Scalable Motion Predictors and Planners. arXiv preprint arXiv:2310.19620, 2023.

[2] Zenan Li, Fan Nie, **Qiao Sun**, Fang Da, Hang Zhao. Boosting Offline Reinforcement Learning for Autonomous Driving with Hierarchical Latent Skills. arXiv preprint arXiv:2309.13614, 2023.

[3] **Qiao Sun**, Xin Huang, Brian Williams, Hang Zhao. P4P: Conflict-Aware Motion Prediction for Planning in Autonomous Driving. IEEE/RSJ International Conf. on Intelligent Robots and Systems (IROS), 2023.

[4] **Qiao Sun**, Xin Huang, Brian Williams, Hang Zhao. InterSim: Interactive traffic simulation via explicit relation modeling. IEEE/RSJ International Conf. on Intelligent Robots and Systems (IROS), 2022.

[5] **Qiao Sun**, Xin Huang, Junru Gu, Brian Williams, Hang Zhao. M2I: From Factored Marginal Trajectory Prediction to Interactive Prediction. Proc. IEEE/CVF Conf. on Computer Vision and Pattern Recognition (CVPR), 2022.

[6] Xin Huang, Xiaoyu Tian, Junru Gu, **Qiao Sun**, Hang Zhao. VectorFlow: Combining Images and Vectors for Traffic Occupancy and Flow Prediction. arXiv preprint arXiv:2208.04530, 2022.

[7] Junru Gu, **Qiao Sun**, & Hang Zhao. Densetnt: Waymo open dataset motion prediction challenge 1st place solution. arXiv preprint arXiv:2106.14160, 2021.

SERVICES

Reviewer for RAL, IROS, T-ITS

SELECTED PROJECT

InterSim (with a Processing Patent)   November 2022 -

An Open Source Interactive Motion Simulator

https://github.com/Tsinghua-MARS-Lab/InterSim