

Ziqi Pang

zqip2@illinois.edu | <https://zqipang.github.io/> | [Google Scholar](#) | 217-200-2374

EDUCATION

University of Illinois Urbana-Champaign (UIUC)

Doctor of Philosophy in Computer Science

September 2021 - Current

Advisor: Prof. Yu-Xiong Wang

Peking University (PKU)

Bachelor of Science in Computer Science, Cum Laude

September 2016 - June 2020

GPA: 3.74/4.00, Top 15%

Carnegie Mellon University (CMU)

Summer Research Assistant

May 2019 - September 2019

Advisor: Prof. Martial Hebert

WORKING AND INTERNSHIP EXPERIENCE

University of Illinois Urbana-Champaign, Ph.D. Student

September 2021 - Current

Spatial-temporal reasoning in 3D perception, including NeRF for large-scale scene perception (**MV-Map** - ICCV 2023), streaming motion forecasting (**Streaming Forecasting** - IROS 2023), and end-to-end tracking and motion forecasting (**PF-Track** - CVPR 2023).

Toyota Research Institute, Research Intern

May 2022 - December 2022

3D tracking from multiple cameras, with a focus on end-to-end tracking and motion prediction in self-driving (**PF-Track** - CVPR 2023).

TuSimple, AI Residency

June 2020 - August 2021

LiDAR-based 3D perception for self-driving. My expertise expanded 3D detection (**SST** - CVPR 2022), 3D multi-object tracking (**SimpleTrack** - ECCVW 2022 and patent), and auto-labeling (**LiDAR-SOT** - IROS 2021).

PUBLICATIONS

MV-Map: Offboard HD-Map Generation with Multi-view Consistency

Ziyang Xie, Ziqi Pang*, Yu-Xiong Wang*

ICCV 2023

Streaming Motion Forecasting for Autonomous Driving

Ziqi Pang, Deva Ramanan, Mengtian Li, Yu-Xiong Wang

IROS 2023

Standing Between Past and Future: Spatio-Temporal Modeling for Multi-Camera 3D Multi-Object Tracking

Ziqi Pang, Jie Li, Pavel Tokmakov, Dian Chen, Sergey Zagoruyko, Yu-Xiong Wang

CVPR 2023

Embracing Single Stride 3D Object Detector with Sparse Transformer

Lue Fan, Ziqi Pang, Tianyuan Zhang, Yu-Xiong Wang, Hang Zhao, Feng Wang, Naiyan Wang, Zhaoxiang Zhang

CVPR 2022

SimpleTrack: Understanding and Rethinking 3D Multi-object Tracking

Ziqi Pang, Zhichao Li, Naiyan Wang

ECCV Workshop 2022, Patented 2023

Model-free Vehicle Tracking and State Estimation in Point Cloud Sequences

Ziqi Pang, Zhichao Li, Naiyan Wang

IROS 2021

PREPRINTS

Unlocking the Full Potential of Small Data with Diverse Supervision

Ziqi Pang^{*}, Zhiyuan Hu^{*}, Pavel Tokmakov, Yu-Xiong Wang, Martial Hebert

Arxiv Preprint 2021

Immortal Tracker: Tracklet Never Dies

Qitai Wang, Yuntao Chen, Ziqi Pang, Naiyan Wang, Zhaoxiang Zhang

Arxiv Preprint 2021

SERVICES

Teaching Assistants for CS 446 (Machine Learning) and CS 445 (Computational Photography) at University of Illinois Urbana-Champaign (UIUC), and ICS (Introduction to Computer System) at Peking University (PKU).

Reviewer for CVPR, ICCV, ECCV, NeurIPS, ICLR, ICML, RA-L, ICRA, IROS.