Siyuan Wu

+31 6 13453298 ◇ siyuanwu99@gmail.com ◇ LinkedIn ◇ GitHub

EDUCATION

Delft University of Technology, Delft, Netherlands *Sep. 2021 - present*
MSc Robotics

Xi'an Jiaotong University, Xi'an, China *Sep. 2017 - Jul. 2021*
Bachelor of Engineering, Automation, (**Honors Engineering Program**, Qian Xuesen Class)
Overall GPA: 90.98/100, ranking: 4/118
Selected Courses: Linear Algebra(90), Mathematical Analysis(92), Probability Theory(98), Complex Analysis and Integral Transformation(100), Operations Research(96), Signals and Systems, Digital Signal Process(90),

University of Edinburgh, Scotland, United Kingdom *Jan. 2020 - Jul. 2020*
Exchange student
Selected Courses: Reinforcement Learning, Game Theory, Multivariate Data Analysis, Sensorimotor Control.

PUBLICATIONS

Botao He*, Haojia Li*, **Siyuan Wu**, Dong Wang, Zhiwei Zhang, Qianli Dong, Chao Xu, Fei Gao "FAST-Dynamic-Vision: Detection and Tracking Dynamic Objects with Event and Depth Sensing", *IEEE/RSJ International Conference on Intelligent Robots and Systems(IROS)*, 2021 [paper, code, video]

RESEARCHES EXPERIENCES

Near Time-optimal Quadrotor Planning for Drone Racing *Jul. 2021 - Aug. 2021*
Supervised by** Dr. Fei Gao, Department of Control Science & Engineering, **Zhejiang University

- Applied the MINCO trajectory representation to find the near time-optimal solutions for different racing tracks.
- Generated polyhedrons through racing gates as hard constraints for trajectory optimization.

Dynamics Vision Based Fast-moving Detection for UAVs *Jul. 2020 - Feb. 2021*
Supervised by** Dr. Fei Gao, Department of Control Science & Engineering, **Zhejiang University

- Implemented a detection and trajectory estimation algorithm based on event stream and depth estimation.
- Integrated these algorithm in a MAV system.

Self-supervised Learning in Crowd Counting *Jun. 2019 - Sep. 2019*
Supervised by** Prof. Yihong Gong and Dr. Xing Wei, **Xi'an Jiaotong University

- Implemented a self-supervised learning algorithm for crowd counting problem, based on image inpainting algorithms and Bayesian loss function.

ACTIVITIES

IEEE RAS Winter School on SLAM in Deformable Environments ***(Won 3rd Prize over 19 Groups)***

AWARDS AND SCHOLARSHIPS

National Scholarship of China	2/120 at Honors Engineering Program	*Nov. 2018*
Mechanic Alumni Scholarship	Top 3% at Qian Xuesen's Honors College	*Mar. 2019*
Second Standard Scholarship	Top 5% at Xi'an Jiaotong University	*Sep. 2019, Sep.2020*

SKILLS

Programming: Python, C/C++, MATLAB
Softwares&Tools: ROS, Gazebo, PX4, OpenCV, PyTorch, Tensorflow, Git, LaTeX
Hardware: Raspberry Pi, Quadrotors, Event Camera