YIJUN YUAN

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EDUCATION

Julius Maximilian University of Würzburg, Germany

October 2021 - Present

Ph.D, advised by Prof. Andreas Nüchter

ShanghaiTech University, China

MSC., advised by Prof. Sören Schwertfeger

September 2018 - June 2021

Outstanding Graduation. GPA: 3.5/4.0

ShanghaiTech University, China

BE., Computer Science and Technology.

September 2014 - June 2018

GPA: 3.69/4.0

EXPERIENCE

ETH Zürich, Switzerland

January 2024 - March 2024

PhD research visiting, in Prof. Marc Pollefeys's group

Julius Maximilian University of Würzburg, Germany

October 2019 - December 2019

Research visiting, advised by Prof. Andreas Nüchter, sponsored by DAAD scholarship

RESEARCH

- 1. **Yuan, Y.**, & Nuechter, A. (2024). Uni-Fusion: Universal Continuous Mapping. IEEE Transactions on Robotics (T-RO).
- 2. Yuan, Y., & Nchter, A. (2023). Online Learning of Neural Surface Light Fields Alongside Real-Time Incremental 3D Reconstruction. IEEE Robotics and Automation Letters (RAL).
- 3. Yuan, Y., & Nchter, A. (2022), An Algorithm for the SE(3)-Transformation on Neural Implicit Maps for Remapping Functions, IEEE Robotics and Automation Letters (RAL).
- 4. Yuan, Y., & Nchter, A. (2022), Indirect Point Cloud Registration: Aligning Distance Fields using a Pseudo Third Point Set, IEEE Robotics and Automation Letters (RAL).
- 5. Hou, J., Yuan, Y., He, Z. & Schwertfeger, S. (2021). Matching Maps based on the Area Graph. Intelligent Service Robotics (JIST).
- 6. Yuan, Y., Borrmann, D., Hou, J., Ma, Y., Nchter, A., & Schwertfeger, S. (2021). Self-supervised Point Set Local Descriptors for Point Cloud Registration. Sensors.
- 7. Yuan, Y., Xu, Q., and Schwertfeger, S. (2020). Configuration-space Flipper Planning on 3D Terrain. In 2020 IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR).
- 8. Long, X., Xu, Q., **Yuan, Y.**, He, Z, and Schwertfeger, S. (2020). Improved Visual-Inertial Localization for Low-cost Rescue Robots. 21st World Congress of the International Federation of Automatic Control (IFAC-WC).
- 9. Hou, J., **Yuan**, **Y.**, and Schwertfeger, S. (2019). Area Graph: Generation of Topological Maps using the Voronoi Diagram. In 2019 19th International Conference on Advanced Robotics (ICAR).
- 10. Yuan, Y., Wang, L., and Schwertfeger, S. (2019). Configuration-space flipper planning for rescue robots. In 2019 IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR).
- 11. **Yuan, Y.**, and Schwertfeger, S. (2019). Incrementally Building Topology Graphs via Distance Maps. In 2019 IEEE International Conference on Real-time Computing and Robotics (RCAR).
- 12. **Yuan, Y.**, Kuang, H., and Schwertfeger, S. (2018). Fast Gaussian Process Occupancy Maps. In 2018 15th International Conference on Control, Automation, Robotics and Vision (ICARCV).

AWARDS

 \cdot Shanghai
Tech University, China

DAAD-Short Term Scholarship

Auguest 2019

 \cdot German Academic Exchange Service

NO.4 in total score, Best on HPCG and Tensorflow

 $\mathrm{June}\ 2018$

· ISC-HPC 2018 high performance competition, Frankfurt, Germany.