

# YIJUN YUAN

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<https://jarrome.github.io>

## PERSONAL INFO.

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Yijun's main focus is on robotics. His previous works are related to SLAM, Mapping and Rescue robotics.

He has currently 12 published papers, including robotics Top journals **T-RO**x1, **RAL**x3.

## EDUCATION

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**Julius Maximilian University of Würzburg, Germany** *Oct. 2021 - Sept. 2024 (Expected)*  
Ph.D, advised by Prof. **Andreas Nüchter**

**ShanghaiTech University, China** *Sept. 2018 - Jun. 2021*  
MSC., advised by Prof. **Sören Schwertfeger** **Outstanding Graduation.** GPA: 3.5/4.0

**ShanghaiTech University, China** *Sept. 2014 - Jun. 2018*  
BE., Computer Science and Technology. GPA: 3.69/4.0

## EXPERIENCE

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**ETH Zürich, Switzerland** *Jan. 2024 - Mar. 2024*  
*PhD research visiting, in Prof. **Marc Pollefeys**'s group*

**Julius Maximilian University of Würzburg, Germany** *Oct. 2019 - Dec. 2019*  
*Research visiting, advised by Prof. **Andreas Nüchter**, sponsored by DAAD scholarship*

## PUBLICATIONS

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1. **Yuan, Y.**, & Nüchter, A. (2024). Uni-Fusion: Universal Continuous Mapping. IEEE Transactions on Robotics (**T-RO**, Q1 Top, 7.8).
2. **Yuan, Y.**, & Nüchter, A. (2023). Online Learning of Neural Surface Light Fields Alongside Real-Time Incremental 3D Reconstruction. IEEE Robotics and Automation Letters (RAL, Q2 Top, 5.2).
3. **Yuan, Y.**, & Nüchter, A. (2022), An Algorithm for the SE(3)-Transformation on Neural Implicit Maps for Remapping Functions, IEEE Robotics and Automation Letters (RAL, Q2 Top, 5.2).
4. **Yuan, Y.**, & Nüchter, A. (2022), Indirect Point Cloud Registration: Aligning Distance Fields using a Pseudo Third Point Set, IEEE Robotics and Automation Letters (RAL, Q2 Top, 5.2).
5. Hou, J., **Yuan, Y.**, He, Z. & Schwertfeger, S. (2021). Matching Maps based on the Area Graph. Intelligent Service Robotics (JIST, Q4, 2.5).
6. **Yuan, Y.**, Borrmann, D., Hou, J., Ma, Y., Nüchter, A., & Schwertfeger, S. (2021). Self-supervised Point Set Local Descriptors for Point Cloud Registration. Sensors (Q3, 3.9).
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

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### **Outstanding Graduation**

Jun. 2021

- ShanghaiTech University, China

### **DAAD-Short Term Scholarship**

Aug. 2019

- German Academic Exchange Service

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

Jun. 2018

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