Yijun Yuan

✉ yuanwj@shanghaitech.edu.cn
◉ School of Information Science and Technology
ShanghaiTech University
393 Huaxiazhong Road,
Shanghai 201210, China.
🌐 https://jarrome.github.io
🌐 https://robotics.shanghaitech.edu.cn/people/yuanyj
in https://www.linkedin.com/in/yijun-yuan-4bba89131/

Education

Sept. 2018 – Present	▉ **M.E., Computer Science and Technology, School of Information Science and Technology, ShanghaiTech University, China.**
Sept. 2014 – Jun. 2018	▉ **B.E., Computer Science and Technology, School of Information Science and Technology, ShanghaiTech University, China.**

Employment

Feb. 2019 – May. 2019	▉ **Computer Vision Engineer Intern, Nullmax Inc**.

Experience

Teaching

Spring 2018	▉ **Teaching Assistant**, Computer Architecture I.

Research

Fall 2016 - Aug. 2017	▉ **Computer Vision** (**1.** Coarse-to-fine Retina Vessel Segmentation via Deep Neural Network, **2.** Crowd Counting).
Sept. 2017 - Aug. 2018	▉ **Mapping, Robotics** (**1.** Automatic Generation of Hierarchical Area Topology Representations from 2D Grid Maps (Bachelor's Thesis), **2.** Fast Gaussian Process Occupancy Mapping (ICARCV2018), **3.** Incrementally building topology graphs via distance maps (RCAR2019), **4.** Topological Area Graph Generation and its Application to Path Planning.)
May. 2018 - Nov. 2018	▉ **Machine Learning** (**1.** Deep Kernel Learning with Randomized Sketches, **2.** CBCT Calibration).
Oct. 2018 - Jan. 2019	▉ **Robot Arm** (Use RL/IL on Arms with Vrep simulator and openAI RL baseline).
Feb. 2019 - May. 2019	▉ **Computer Vision** (FCN-based Descriptor for Planar Object Tracking)
Feb. 2019 - present	▉ **Planning, Rescue Robotics** (Configuration-Space Flipper Planning for Rescue Robots (SSRR2019); 3D terrain flipper planning)
	▉ **Mapping, Robotics** (GPOM representation on Maps)
May. 2019 - present	▉ **Computer Vision** (Point cloud representation for 3D registration)

Research Publications

1. Yuan, Y., Wang, L. & Schwertfeger, S. (2019). Configuration-space flipper planning for rescue robots. In *2019 ieee international symposium on safety, security, and rescue robotics (ssrr)* (to be published). IEEE.

2. Yuan, Y. & Schwertfeger, S. (2019). Incrementally building topology graphs via distance maps. In *2019 ieee international conference on real-time computing and robotics (rcar)* (to be published). IEEE.

3. Yuan, Y., Kuang, H. & Schwertfeger, S. (2018). Fast gaussian process occupancy maps. In *2018 15th international conference on control, automation, robotics and vision (icarcv)* (pp. 1502–1507). IEEE.

4. Jiawei, H., Yuan, Y. & Schwertfeger, S. (2018). Topological area graph generation and its application to path planning. *arXiv preprint arXiv:1811.05113*.

Awards

2016	**Dean's Scholarship** ShanghaiTech University.
2017	**Excellent Scholarship**, ShanghaiTech University.
2018	**Fan's Favorite Prize, NO.4 in total score, Best on HPCG and Tensorflow**, ISC 2018 high performance competition, Frankfurt, Germany.

Skills

Professional skills	Robotics, Computer Vision (traditional and DL), Kernel Learning
Programming	Python, C++, C, MATLAB, R
Software	ROS, Gym, 3DTK
Simulator	Vrep
Framework	Tensorflow, Pytorch
Language	English (fluent), Chinese (native)