

Xinkai Jiang

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Education

- 2022.12 – present **Ph.D. Student in Computer Science, Karlsruhe Institute of Technology**
Karlsruhe, Germany
Supervisor: Prof. Dr. Rudolf Lioutikov, Prof. Dr. Gerhard Neumann
Research Interest: Human-Robot Interaction, Imitation Learning, Robotics
- 2019.09 – 2021.07 **M.Eng. in Mechanical Engineering, Harbin Institute of Technology**
Harbin, China
Supervisor: Prof. Lijun Zhao
Thesis title: Research on Navigation Technology of Smart Home Robots
- 2015.09 – 2019.06 **B.Eng. in Mechanical Engineering, Harbin Institute of Technology**
Harbin, China
Outstanding Graduate Award

Publications

- 1 **Xinkai Jiang**, Paul Mattes, Xiaogang Jia, Nicolas Schreiber, Gerhard Neumann, Rudolf Lioutikov, “A comprehensive user study on augmented reality-based data collection interfaces for robot learning,” in *Proceedings of the 2024 ACM/IEEE International Conference on Human-Robot Interaction*, 2024, pp. 333–342.
- 2 Jia Xiaogang, Denis Blessing, **Xinkai Jiang**, et al., “Towards diverse behaviors: A benchmark for imitation learning with human demonstrations,” in *The Twelfth International Conference on Learning Representations*, 2024. 🔗 URL: <https://openreview.net/forum?id=6pPYRXKPPw>.
- 3 **Xinkai Jiang**, Paul Mattes, Xiaogang Jia, Gerhard Neumann, Rudolf Lioutikov, “A user study on augmented reality-based robot learning data collection interfaces,” in *Conference on Robot Learning 2023 Workshop TGR*, 2023.
- 4 Zhi Qiao, Lijun Zhao, Le Gu, **Xinkai Jiang**, Ruifeng Li, Lianzheng Ge, “Research on abnormal pedestrian trajectory detection of dynamic crowds in public scenarios,” *IEEE Sensors Journal*, vol. 21, no. 20, pp. 23 046–23 054, 2021.
- 5 Zhi Qiao, Lijun Zhao, **Xinkai Jiang**, Le Gu, Ruifeng Li, “A navigation probability map in pedestrian dynamic environment based on influencer recognition model,” *Sensors*, vol. 21, no. 1, p. 19, 2020.
- 6 Lijun Zhao, Yu Liu, **Xinkai Jiang**, Ke Wang, Zigeng Zhou, “Indoor environment rgb-dt mapping for security mobile robots,” in *Intelligent Robotics and Applications: 12th International Conference, ICIRA 2019, Shenyang, China, August 8–11, 2019, Proceedings, Part IV 12*, Springer, 2019, pp. 131–141.

Awards

- 2020 **National Third Prize** in China Postgraduate Robot Innovation and Design Competition (5%)
Second Prize in Postgraduate Scholarship
Second Prize in RoboMaster 2020 AI Challenge Competition (Decision Group)

Awards (continued)

- 2020
 - 📌 **First Prize** in RoboMaster 2020 AI Challenge Competition (Open Source Awards)
 - 📌 **Second Prize** in RoboMaster 2020 AI Challenge Competition (Navigation and Motion Planning Group)
 - 📌 **Third Prize** in RoboMaster 2020 AI Challenge Competition (Perception Group)
- 2019
 - 📌 **First Prize** in China Postgraduate Robot Innovation and Design Competition (1%)
 - 📌 **First Prize** Postgraduate Scholarship
 - 📌 **100 Best Undergraduate Dissertation (2.6%)**
- 2018
 - 📌 **RenMing Scholarship (15%)**
- 2017
 - 📌 **Merit Award** in Zhou Peiyuan College Student Mechanics Competition (10%)
 - 📌 **GuangHua Scholarship (10%)**
- 2016
 - 📌 **SMC Scholarship (15%)**

Projects

- 2019.01 – 2021.05
 - 📌 **Intelligent Home Service Robot Technology and System**
Funded by *National Key R&D Program of China*
 - Robot Navigation System Development
 - Home Service Robot Mechanical Structure Design
- 2019.01 – 2020.05
 - 📌 **All-weather 500 KV HV transmission line inspection robot**
Cooperated with *China Southern Power Grid Company*
 - Mechanical Analysis

Employment

- 2019.09 – 2021.06
 - 📌 **Research Assistant, Southern University of Science and Technology**
Shenzhen, China
Supervisor: *Prof. Hong Zhang*
Research Topic: *"Pedestrian detection using 2D LiDAR."*

Academic Exchange

- 2019.07
 - 📌 **The Second ZJU SLAM Summer School**
- 2018.07
 - 📌 **The Third HIT Intelligent Robot International Summer School**

Skills

- Proficient
 - 📌 Python Unity C# ROS TensorFlow Pytorch C++ Linux MRTK
- Familiar
 - 📌 OpenCV CUDA Java C Matlab
- Misc.
 - 📌 Git Markdown LaTeX