

CHEN YIZHOU

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<https://jinixer000.github.io>

EDUCATION

Ph.D. in Robotics , The Chinese University of Hong Kong (CUHK) and Linear Systems.	2019 - 2023
B.S. in Automation , Nanjing University of Aeronautics and Astronautics (NUAA) GPA: 90/100, ranking: 10/180	2015 - 2019

SKILLS

Technical Skills	CUDA C, C++, Python, MATLAB
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EXPERIENCE

Algorithm Engineer Intern Roadfend Vision Technology Co., Ltd.	Jul 2018 - Sep 2018 <i>Shanghai, China</i>
• Work on the latest image segmentation algorithms and improve self-driving system.	
Associate Scientist Temasek Lab in NUS	Jan 2019 - Mar 2019 <i>Singapore</i>
• Work on GPU-accelerated mapping algorithm of UAV.	
Ph.D Student The Chinese University of Hong Kong	Nov 2019 - Oct 2023 <i>Hong Kong</i>
• Work on formal methods for mobile robot planning.	
Postdoctoral Fellow Center for Transformative Garment Production	Nov 2023 - now <i>Hong Kong, China</i>
• Work on task and motion planning of dual-arm robots.	

ACADEMIC SERVICE

Associate Editor The 2024 International Conference on Control and Automation (ICCA)

Reviewer

- **Journals** The IEEE Transactions on Robotics (T-RO), IEEE Robotics and Automation Letters, IEEE Transactions on Cybernetics, IEEE Control Systems Letters, Unmanned Systems
- **Conferences** ICRA, IROS, RSS, ICCA, ICUAS

PUBLICATION

CHEN Yizhou, LAI Shupeng, WANG Biao, LIN Feng, and Ben M. CHEN "A GPU Mapping System for Real-time Robot Motion Planning." 2021 IEEE International Conference on Real-time Computing and Robotics (RCAR).

WANG Xinyi, XI Lele, **CHEN Yizhou**, LAI Shupeng, LIN Feng, Ben M. CHEN, "Decentralized MPC-based trajectory generation for multiple quadrotors in cluttered environments." Guidance, Navigation and Control (2021).

CHEN Yizhou, LAI Shupeng, CUI Jinqiang, WANG Biao, and Ben M. CHEN, "GPU-accelerated Incremental Euclidean Distance Fields for Online Motion Planning of Mobile Robots." IEEE Robotics and Automation Letters (2022), presented in 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).

ZHOU Xunkuai, YANG Guidong, **CHEN Yizhou**, LI Li and Ben M. CHEN, "VDTNet: A high-performance visual network for detecting and tracking of intruding drones." IEEE Transactions on Intelligent Transportation Systems (2023).

CHEN Yizhou, WANG Ruoyu, WANG Xinyi, and Ben M. CHEN, "Sampling-based Path Planning under Temporal Logic Constraints with Real-time Adaptation." 2023 IEEE International Conference on Robotics and Automation (ICRA).

CHEN Yizhou, WANG Xinyi, GUO Zixuan, WANG Ruoyu, ZHOU Xunkuai, YANG Guidong, LAI Shupeng, and Ben M. CHEN, "An interactive system for multiple-task linear temporal logic path planning." 2023 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).

WANG Ruoyu, GUO Zixuan, **CHEN Yizhou**[†], WANG Xinyi and Ben M. CHEN, "Air bumper: A collision detection and reaction framework for autonomous MAV navigation." 2024 IEEE International Conference on Robotics and Automation (ICRA). ([†] Corresponding author)

WANG Xinyi, XU Jiwen, GAO Chuanxiang, **CHEN Yizhou**, ZHANG Jihan, WANG Chengang and Ben M. CHEN, "Sensor-based multi-robot search and coverage with spatial separation in unstructured environments." 2023 IEEE International Conference on Robotics and Automation (ICRA).

WANG Xinyi, DING Yulong, **CHEN Yizhou**, HAN Ruihua, XI Lele, Ben M. CHEN, "OA-ECBVC: A Cooperative Collision-free Encirclement and Capture Approach in Cluttered Environments." 2023 IEEE Conference on Decision and Control (CDC).

CHEN Guanqi, YANG Lei, JIA Ruixing, HU Zhe, **CHEN Yizhou**, ZHANG Wei, WANG Wenping, PAN Jia, "Language-Augmented Symbolic Planner for Open-World Task Planning." Accepted by 2024 Robotics: Science and Systems (RSS).

YU Dongjie, XU Hang, **CHEN Yizhou**, REN Yi, and PAN Jia, "BiKC: Keypose-Conditioned Consistency Policy for Bimanual Robotic Manipulation." The 16th International Workshop on the Algorithmic Foundations of Robotics (WAFR).

CHEN Yizhou, TANG Jerry, WANG Ruoyu, GUO Zixuan, WANG Xinyi, GAO Songqun, LIU Xuchen, PAN Jia, and Ben M. CHEN, "Synergistic temporal logic planning for an aerial gripper." **Best paper in Automation Finalist**, the 2024 IEEE International Conference on Robotics and Biomimetics (ROBIO).

CHEN Chang, LU Liang, YANG Lei, ZHANG Yinqiang, **CHEN Yizhou**, JIA Ruixing, PAN Jia, "Signage-Aware Exploration in Open World using Venue Maps." IEEE Robotics and Automation Letters (2025).

Xu Hang, **CHEN Yizhou**[†], Yu Dongjie, Ren Yi, PAN Jia[†], "BiKC+: Bimanual Hierarchical Imitation with Keypose-Conditioned Coordination-Aware Consistency Policies." IEEE Transactions on Automation Science and Engineering (2025). ([†] Corresponding authors)

CHEN Yizhou, et al., "Decompose and Reorganize: Planning with Primitives and Visuomotor Policies Learned from Demonstrations." In submission. Website: <https://dr-lfd.github.io/DR-LfD-website/>

HONORS

Research Talent Hub for ITF projects	Mar 2024
Outstanding Reviewer Award, Unmanned Systems	Dec 2023
Postgraduate Scholarship	Aug 2020
China National Scholarship (Undergraduate)	Oct 2018