

# CHEN YIZHOU

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<https://jinxer000.github.io>

## EDUCATION

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**Ph.D. in Robotics**, The Chinese University of Hong Kong (CUHK) 2019 - 2023  
and Linear Systems.

**B.S. in Automation**, Nanjing University of Aeronautics and Astronautics (NUAA) 2015 - 2019  
GPA: 90/100, ranking: 10/180

## SKILLS

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

## EXPERIENCE

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**Algorithm Engineer Intern** Jul 2018 - Sep 2018  
Roaddefend Vision Technology Co., Ltd. *Shanghai, China*

- Work on the latest image segmentation algorithms and improve self-driving system.

**Associate Scientist** Jan 2019 - Mar 2019  
Temasek Lab in NUS *Singapore*

- Work on GPU-accelerated mapping algorithm of UAV.

**Ph.D Student** Nov 2019 - Oct 2023  
The Chinese University of Hong Kong *Hong Kong*

- Work on formal methods for mobile robot planning.

**Postdoctoral Fellow** Nov 2023 - now  
Center for Transformative Garment Production *Hong Kong, China*

- Work on task and motion planning of dual-arm robots.

## ACADEMIC SERVICE

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**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

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**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**<sup>†</sup>, 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). (<sup>†</sup> 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**<sup>†</sup>, Yu Dongjie, Ren Yi, PAN Jia<sup>†</sup>, "BiKC+: Bimanual Hierarchical Imitation with Keypose-Conditioned Coordination-Aware Consistency Policies." IEEE Transactions on Automation Science and Engineering (2025). (<sup>†</sup> 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

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| 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 |