

# Yipeng PAN

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Page <https://yippan.top/>

(+852) 6733-3260

Hong Kong SAR

## EDUCATION

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**China University of Mining and Technology (211)**

Sep 2015 – Jul 2019

**B.Eng. in Electronic Engineering**

GPA: 85 / 100 (Top 15%, Recommended Admission to Postgraduate)

**The University of Hong Kong**

Sep 2023 – TBC.

**Ph.D. in Computer Science (Robotics)**

Supervisor: [Dr. Jia Pan](#)

[Prof. Anthony G.O. Yeh](#) (Academician, Chinese Academy of Sciences)

## CAREER

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**HKUST [iLab](#)**

Position: Research Assistant

Director: Prof. Weisheng Lu

Apr 2021 – Nov 2021

Nov 2022 – Mar 2023

**HKUST [HKCRC](#)**

Position: Research Assistant

Director: Prof. Zexiang Li

Dec 2021 – Oct 2022

**HKU [TransGP](#)**

Position: Research Assistant

Director: Prof. Norman C. Tien

Apr 2023 – TBC.

## SKILLS

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**Coding:** C / C++ / Java / Python

**GUI:** Qt (C++), Android (Java), IOS (Objective - C)

**Cooperation:** Git

**Computer Vision:** OpenCV, Halcon

**Robotics:** Linux Shell, ROS

**Mechanics:** AutoCAD, SolidWorks, 3D Printing

**Electronics:** Verilog HDL (FPGA), STM32 (HAL, STD), Arduino, PCB Layout (SMT)

**Word:** LaTeX, Markdown

## AWARDS

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Gold Award, Hong Kong ICT Awards (Smart Logistics)

2022

2<sup>nd</sup> Prize, National Electronic Design Competition

2017

National Encouragement Scholarship, Ministry of Education

2018

Honorable Mentions, Mathematical Contest in Modeling

2018

1<sup>st</sup> Prize, Provincial Electronic Design Competition

2017

2<sup>nd</sup> Prize, Provincial Electronic Design Competition

2018

2 <sup>nd</sup> Prize, Postgraduate Electronic Design Competition	2019
School Excellent Graduation Design	2019
1 <sup>st</sup> Prize, School Electronic Design Competition	2019
Second Class Scholarship	2017

## PROJECTS

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### SELECTED:

- ◆ **Tracking Drone (Second Prize winner in National Electronic Design Competition)**  
The drone can autonomously take off, hover and land. It can also automatically track and follow a remote-control car (by learning to follow targets of different colors).
- ◆ **i-Core (Funded by ITF2020 (ITP/029/20LP))**  
With the goal of improving the management of building processes and supply chains, the system will organize data collected from IMU, GPS, UWB, and other sensors into a specific format. Subsequently, this data will be uploaded to a universal platform integrating BIM, Blockchain, etc.
- ◆ **LiDAR SLAM Synchronization Board (Start-up Project)**  
This board is designed to synchronize peripheral sensors, including LiDAR, IMU, cameras, and motor encoders, Consequently, to improve the effectiveness of LiDAR SLAM.

**PS:** Entire Portfolio & Demos: <https://yppan.top/Portfolio>

## PUBLICATIONS

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- [1]** Chen, Junjie & Lu, Weisheng & Pan, Yipeng & Fu, Yonglin. (2024). Building "RoboAvatar": Industry Foundation Classes–Based Digital Representation of Robots in the Built Environment. *Journal of Computing in Civil Engineering*.
- [2]** Lu, Liang, Yinqiang Zhang, Peng Zhou, Jiaming Qi, Yipeng Pan, Changhong Fu, and Jia Pan. "Semantics-Aware Receding Horizon Planner for Object-Centric Active Mapping." *IEEE Robotics and Automation Letters* (2024).
- [3]** Chen, Junjie & Fu, Yonglin & Lu, Weisheng & Pan, Yipeng. (2023). Augmented reality-enabled human-robot collaboration to balance construction waste sorting efficiency and occupational safety and health. *Journal of environmental management*.
- [4]** Lu, Weisheng & Chen, Junjie & Fu, Yonglin & Pan, Yipeng & Ghansah, Frank. (2023). Digital twin-enabled human-robot collaborative teaming towards sustainable and healthy built environments. *Journal of Cleaner Production*.