

Han YANG

hanyang12@link.cuhk.edu.cn | <https://simonhanyang.github.io/>

RESEARCH INTERESTS

Robotic Micromanipulation, 3D Visual Perception, Reinforcement Learning, 3D Reconstruction

EDUCATION

- **The Chinese University of Hong Kong, Shenzhen** Sep 2023 - present
Ph.D. in Computer and Information Engineering
◦ Supervisor: Prof. Zhuoran Zhang & Prof. Yu Sun
Shenzhen, China
- **Hong Kong Baptist University** Sep 2019 - May 2023
B.S. in Computer Science
◦ Supervisor: Prof. Hui Zhang
◦ Study in Beijing Normal-Hong Kong Baptist University (BNBU)
Hong Kong, China

SELECTED PUBLICATIONS

1. **Weakly-Supervised Depth Completion during Robotic Micromanipulation from a Monocular Microscopic Image**
Han Yang, Yufei Jin, Guanqiao Shan, Yibin Wang, Yongbin Zheng, Jiangfan Yu, Yu Sun, Zhouan Zhang
IEEE International Conference on Robotics and Automation (ICRA), 2024
2. **Ape Optimizer: A P-Power Adaptive Filter-Based Approach for Deep Learning Optimization**
Yufei Jin, Han Yang, Xinrui Wang, Yingche Xu, Zhuoran Zhang
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2025
3. **Depth Estimation for Motile Cell under Monocular Microscopy Based on Fine-grained Classification**
Han Yang, Yufei Jin, Xinrui Wang, Zhouan Zhang
IEEE International Conference on Micro/Nano Sensors for AI, Healthcare and Robotics (IEEE-NSSENS), **Best Paper Award**, 2024
4. **Fully On-Smartphone: Efficient Speed-Up of Sperm Tracking Algorithm for Point-of-Care Semen Analysis**
Yongbin Zheng, Aojun Jiang, Xiliang Wang, Miao Hao, Han Yang, Zidong Ma, Jiachun Zheng, Yufei Jin, Chunfeng Yue, Zongjie Huang, Rongan Zhai, Junhui Zhu, Changhai Ru, Chao Du, Bolun Wang, Yuexin Yu, Zhouan Zhang*
IEEE Transactions on Biomedical Engineering, 2025
5. **WTBNeRF: Wind Turbine Blade 3D Reconstruction by Neural Radiance Fields**
Han Yang, Linchuan Tang, Hui Ma, Rongfeng Deng, Hui Zhang*
International conference on the Efficiency and Performance Engineering Network (TEPEN), 2022
6. **HQNet: An Efficient Convolutional Neural Network for Cervical Cancer Classification**
Han Yang, Teoh Teik Toe*
IEEE International Conference on Biomedical Imaging, Signal Processing (ICBSP), 2022

SELECTED PATENTS

1. **A method for estimating the depth information of motile cells and a robotic micromanipulation device**
Chunfeng Yue, Han Yang, Zongjie Huang, Zhuoran Zhang
Chinese Invention Patent [CN202411923420.7], 2025

ACADEMIC RESEARCH EXPERIENCES

- **Dalian University of Technology**  Jan 2025 - present
Research Assistant
◦ Supervisor: Prof. Zhuoran Zhang [Prof. Yu Sun's Group]
◦ Institution of Robotics and Intelligent System
◦ Micromanipulation System Design, 3D Visual Perception, Reinforcement Learning
Dalian, China
- **The Chinese University of Hong Kong, Shenzhen**  Sep 2023 - present
Ph.D. Student & Research Assistant
◦ Supervisor: Prof. Zhuoran Zhang & Prof. Yu Sun
◦ Micromanipulation System Design, 3D Visual Perception, Reinforcement Learning
Shenzhen, China
- **Beijing Normal-Hong Kong Baptist University (BNBU)**  Sep 2021 - May 2023
Research Assistant
◦ Supervisor: Prof. Hui Zhang
Zhuhai, China

- Key Laboratory for Artificial Intelligence and Multi-Modal Data Processing of Department of Education of Guangdong Province
- 3D Reconstruction, Camera Calibration, Medical Image Processing
- **Nanyang Technological University** [🌐]
Research Assistant
◦ Supervisor: Dr. Teoh Teik Toe
◦ Medical Image Processing

July 2022 - Sep 2022
Remote

INDUSTRY EXPERIENCES

- **FunPlus Inc.** [🌐]
Python Intern
◦ Python Data Analysis, Cloud Database

Jun 2021 - Sep 2021
Beijing, China

ACADEMIC SERVICES

- **Peer Review:** T-ASE, RA-L
- **Teaching Assistant:** Calculus I, Calculus II, Introduction to Computer Science: Programming Methodology
- **Membership:** IEEE, IEEE Robotics and Automation Society