Site Hu

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EDUCATION

University of Osaka, Systems Innovation, *Ph.D* 2021.10 - 2025.09

Johns Hopkins University, Mechanical Engineering, *M.S.* 2017.09 - 2019.05

Shanghai Jiao Tong University, Mechanical Engineering, *B.S.* 2013.09 - 2017.07

- **Minor**: Japanese
- **GPA**: 3.77/4.3 (4/54, top 10%))

RESEARCH INTEREST

Explainble Autonomous Robot: Human-Robot Interaction, World Model, Interpretability
Robot Manipulation: Reinforcement Learning, Imitation Learning, Diffusion Policy

WORK EXPERIENCE

University of Osaka (Osaka, Japan), Project Researcher 2025.10 - Present

- Yoshikawa Laboratory, Graduate School of Engineering Science
- Engaged in research and development activities for *Moonshot Goal 1 R&D Projects: The Realization of an Avatar-Symbiotic Society where Everyone Can Perform Active Roles without Constraint(PM: Prof. Hiroshi Ishiguro)*

Huawei Technologies Co., Ltd. (Dongguan, China), Single-Board Hardware Engineer / Optical Technology Engineer 2019.09 - 2021.09

- Access Network Hardware Optical Access Technology Development Group
- *(2020.04 −2021.04)* Designed a new Combo OLT miniaturized optical device with a small size, high coupling efficiency, and high structural reliability
- *(2019.12 −2021.09)* Enhanced existing automated testing systems and developed new testing frameworks for optical modules using Python, Tcl, and Ruby, covering over 80% of testing scenarios and improving efficiency by 50%
- *(2019.09 −2020.09)* Established a prototyping laboratory for optical components, accelerating the prototyping process and supporting the rapid validation of over 10 new products
- *(2019.09−2020.09)* Designed and implemented a cost-reduction solution for GPON ONU BOSA, achieving approximately 10% cost savings, which was successfully adopted in the next-generation GPON products; This work was recognized with the Excellence Award at the 2020 Huawei Songshan Lake Research Institute Innovation Competition

RESEARCH EXPERIENCE

University of Osaka, Yoshikawa Laboratory 2025.10 – Present

- *Project Researcher*
- Integrated foundation models with imitation learning to improve the performance and interpretability of autonomous robot policies

University of Osaka, Nagai Laboratory / Yoshikawa Laboratory 2021.10 – 2025.10

- *Ph.D. Student, Advisors: Prof. Takayuki Nagai / Prof. Yuichiro Yoshikawa*
- Proposed a framework that leverages language instructions and visual inputs to enable autonomous multi-task execution without expert demonstrations, enhancing generalization and interpretability
- Developed explanation generation methods for autonomous robots based on world models, enhancing both policy performance and interpretability

Johns Hopkins University 2021.10 – 2025.10

- *M.S. Student, Advisor: Prof. Dennice Gayme*
- Designed and implemented posture control for an self-balancing robot and a LiDAR-based SLAM system, and investigated multi-system coordination and control with robotic manipulator

PUBLICATIONS

TARAD: Task-Aware Robot Affordance-centric Diffusion Policy Learned from LLM-Generated Demonstrations *RA-L* 2025.08

- **Authors**:Site Hu, Takayuki Nagai, Takato Horii
- To be presented at ICRA 2026

Adaptive and Transparent Decision-Making in Autonomous Robots Through Graph-Structured World Models *Advanced Robotics* 2024.10

- **Authors**:Site Hu, Takato Horii, Takayuki Nagai

Explainable autonomous robots in continuous state space based on graph-structured world model *Advanced Robotics* 2023.07

- **Authors**:Site Hu, Takayuki Nagai
- Presented at ICRA 2023 Workshop on 'Avatar-Symbiotic Society'

HONORS

Excellence Award（Huawei Songshan Lake Research Institute Innovation Competition） 2020
Future Star Award（Huawei） 2020
Future Star Award（Huawei） 2019
Outstanding Project Award（8th SJTU Innovation Program） 2014

SKILLS

Programming: Python、C/C++、MATLAB、PyTorch、Docker、TypeScript、Next.js、Ruby、Tcl
Engineering: ABAQUS、SolidWorks、Siemens NX、AutoCAD
Other: Valid driver's licenses in China and Japan

LANGUAGES

Chinese: Native
English: Proficient，（TOEFL-iBT: 99/120, 2016; GRE: 318/340, 2016; CET-6, 2014）
Japanese: Proficient，（JLPT N1: 133/180, 2016）