Naruya KONDO

PhD Student | JSPS Research Fellow (DC1)

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Google Scholar (H-index 3) | Google Patents (JP×2, US×1) | Docker Hub (1200+ pulls) | GitHub (600+ stars)

PhD student at the University of Tsukuba and JSPS Research Fellow (DC1), specializing in 3D machine learning and collaborative 3D environments. Led the development of 3D avatar systems for the Yoichi Ochiai Pavilion at Expo 2025 Osaka-Kansai.

Education

2023 – Present	Ph.D. in Computer Science, University of Tsukuba (Advisor : Yoichi Ochiai)
2023 – Present	JSPS Research Fellow (DC1)
2021 – 2023	M.S. in Computer Science, University of Tsukuba (Advisor : Yoichi Ochiai)
2016 – 2020	B.Eng. in Engineering, The University of Tokyo (Advisor : Yutaka Matsuo)
2016	Admitted to The University of Tokyo via Recommendation-based Admission

Research & Development Experience

Apr 2025 – Jul 2024 | **3D Avatar System Developer, Expo 2025 Osaka-Kansai, Yoichi Ochiai Pavilion, Japan**
Developed and deployed 3D avatar systems for the world exposition pavilion.
Gaussian Splatting | three.js | WebGL | AWS | WebRTC

Oct 2022 – Nov 2021 | **INNO-vation Program, Ministry of Internal Affairs and Communications, Japan**
"Tell Your World, with your Smartphone Camera" — Individual project funded with 3,000,000 JPY grant.
Deep Learning | Unity

Feb 2021 – May 2020 | **Mitou AI Frontier Program (2nd Cohort), Mitou Foundation, Japan**
"Deep Physics Simulation" — Individual project funded with 3,000,000 JPY grant.
– **AI Frontier Pathfinder Award.**
Deep Learning | Unity

Mar 2020 – Feb 2020 | **Spring Founders Program, The University of Tokyo, Japan**
"Deep Physics Simulation" — Individual entrepreneurship project.
Deep Learning

Mar 2019 – Apr 2018 | **Software Engineering Intern, HealthyVR, Inc., Japan**
Contributed to VR healthcare applications development.
Deep Learning | VR | Unity

Jun 2018 – Sep 2017 | **Software Engineering Intern, Aidemy, Inc., Japan**
Developed AI/ML educational materials and course content.
Python | Deep Learning

May 2017 – Apr 2016 | **Member, RoboTech, The University of Tokyo, Japan**
Participated in robotics club activities and competitions.
Robotics

Sep 2014 – Apr 2013 | **Development of Autonomous Puzzle & Dragons Robot, Individual Project, Japan**
– **Award of Excellence (First Class), Japan Student Science Award.**
Kinect | MINDSTORMS

Selected Publications

P4. **Mirrored Billboards for Safe and Format-Agnostic Asset Sharing in Social Public Metaverses.** VRST Demo 2025
Naruya Kondo, Yuto Asano, Yoichi Ochiai.

P3. **Instant Skinned Gaussian Avatars for Web, Mobile and VR Applications.** SUI Demo 2025
Naruya Kondo, Yuto Asano, Yoichi Ochiai. – **Best Demo Award**

P2. **Immersive Real World through Deep Billboards.** SIGGRAPH Immersive Pavilion 2022
Naruya Kondo, So Kuroki, Ryosuke Hyakuta, Yutaka Matsuo, Shixiang Shane Gu, Yoichi Ochiai.

P1. **VaxNeRF : Revisiting the Classic for Voxel-Accelerated Neural Radiance Field.** arXiv 2022
Naruya Kondo, Yuya Ikeda, Andrea Tagliasacchi, Yutaka Matsuo, Yoichi Ochiai, Shixiang Shane Gu.

Other Publications

O7. **Diverse and Complex Motion Acquisition via Reinforcement Learning with Motion Diffusion Model Reference.** JSAI 2023
Hiroki Oba, **Naruya Kondo**, Yusuke Iwasawa, Yutaka Matsuo.

O6. **Dance Generation by Sound Symbolic Words.** arXiv 2023
Miki Okamura, **Naruya Kondo**, Tatsuki Fushimi, Maki Sakamoto, Yoichi Ochiai.

O5. **Towards Digital Nature : Bridging the Gap between Turing Machine Objects and Linguistic Objects in LLMMs.** arXiv 2023
Yoichi Ochiai, **Naruya Kondo**, Tatsuki Fushimi.

O4. **Pseudo-3D Models Based on 2D Image Generation and Their Usage in Virtual Worlds.** JSAI 2022
Naruya Kondo, So Kuroki, Ryosuke Hyakuta, Yutaka Matsuo, Shixiang Shane Gu, Yoichi Ochiai.

O3. **Learning World Models with Skill-Based Exploration Policies.** JSAI 2021
Naruya Kondo, Yusuke Iwasawa, Yutaka Matsuo.

O2. **Action-Conditioned Video Prediction Using Deep State Space Models with Hierarchical State Representations.** JSAI 2020
Naruya Kondo, Yusuke Iwasawa, Yutaka Matsuo.

O1. **Modeling Task Uncertainty for Safe Meta-Imitation Learning.** Frontiers in Robotics and AI 2020
Tatsuya Matsushima, **Naruya Kondo**, Yusuke Iwasawa, Kaoru Nasuno, Yutaka Matsuo.

Patents

PT3. **Display Device and Display Method. Naruya Kondo**. US20230023455A1, 2023

PT2. **Display Device and Display Method. Naruya Kondo**. JP7471034, 2023

PT1. **Display Device and Display Method. Naruya Kondo**. JP7175529, 2022

Lectures & Invited Talks

Mar 2026	“Turning Your Research into a Legacy” — Moon Shot 9 Young Professionals Group
Dec 2025	“The Current State and Future of 3D Real Avatars” — XR Kaigi 2025
Nov 2025	“Gaussian-VRM Hackathon” — Giken Base, Tokyo
Nov 2025	“Gaussian-VRM Demo & Experience Night” — KERNEL HONGO, Tokyo
Aug 2025	Yoichi Ochiai Summer School — Table Unstable
Jun 2021	Talk for High School Students — Hiroshima Prefectural Kure Mitsuda High School
May 2020	Deep Reinforcement Learning Summer School, Session 2 : “Simulator Usage and Continuous Control” — Matsuo Lab, The University of Tokyo

Media Coverage

Oct 2025	“Gaussian-VRM Open Source Release” — Mogura VR, ITmedia NEWS, CGWORLD
Jul 2019	“Cutting-edge AI ‘Meta-Learning’ is Amazing” — Nikkei xTREND
May 2017	“Tongaru Todai” — The University of Tokyo Newspaper

Awards

Nov 2025	Best Demo Award — ACM SUI 2025
Feb 2021	AI Frontier Pathfinder Award — Mitou AI Frontier Program
Dec 2014	Award of Excellence (First Class), Japan Student Science Award

Affiliations

2019 – Present	Member, KERNEL HONGO (AI Incubation Program)