# Jun Yamada

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## **EDUCATION**

University of Oxford Oxford, United Kingdom

**10/2021** ~ **Present** 

**DPhil Engineering Science** 

The Applied AI Lab (A2I), Supervisor: Professor Ingmar Posner

University of Southern California. Los Angeles, United States

 $10/2019 \sim 10/2021$ 

Visiting scholar at Cognitive Learning for Vision and Robotics (CLVR) lab,

Supervisor: Professor Joseph J. Lim

University College London · London, United Kingdom

 $09/2018 \sim 09/2019$ 

MSc Data Science and Machine Learning in the Department of Computer Science

Distinction Honor

Keio University · Tokyo, Japan

04/2014 - 03/2018

B.Eng. in Administration Engineering (computer science, applied mathematics, and statistics)

KTH Royal Institute of Technology · Stockholm, Sweden

08/2016 - 07/2017

Exchange student, School of Computer Science

## **CONFERENCE PAPERS**

- [C8] **J Yamada**, J Collins, I Posner, "Efficient Skill Acquisition for Industrial Insertion Tasks in Obstructed Environments", *Learning for Dynamics & Control Conference (L4DC)*, 2024.
- [C7] **J Yamada**, M Rigter, J Collins, I Posner, "TWIST: Teacher-Student World Model Distillation for Sim-to-Real Transfer", *International Conference on Robotics and Automation (ICRA)*, 2024.
- [C6] M Kobayashi\*, **J Yamada**\*, M Hamaya, K Tanaka, "LfDT: Learning Dual-Arm Manipulation from Demonstration Translated from Human and Robotic Arm", *IEEE-RAS International Conference on Humanoid Robotics*, 2023
- [C5] AL Mitchell, OP Jones, **J Yamada**, W Merkt, I Havoutis, I Posner, "From Primates to Robots: Emerging Oscillatory Latent-Space Dynamics for Sensorimotor Control", *Conference on Cognitive Computational Neuroscience (CNN)*, 2023
- [C4] **J Yamada\***, C Hung\*, J Collins, I Havoutis, I Posner, "Leveraging Scene Embeddings for Gradient-Based Motion Planning in Latent Space", *International Conference on Robotics and Automation (ICRA)*, 2023.
- [C3] **J Yamada**, K Pertsch, A Gunjal, JJ Lim, "Task-Induced Representation Learning", *International Conference on Learning Representation (ICLR)*, 2022.
- [C2] **J Yamada**\*, Y Lee\*, G Salhotra, K Pertsch, M Pflueger, GS Sukhatme, JJ Lim, P Englert, "Motion Planner Augmented Reinforcement Learning for Robot Manipulation in Obstructed Environments", *Conference on Robot Learning (CoRL)*, 2020.
- [C1] **J Yamada**, J Shawe-Taylor, Z Fountas, "Evolution of a Complex Predator-Prey Ecosystem on Large-Scale Multi-Agent Deep Reinforcement Learning", *International Joint Conference on Neural Network (IJCNN)*, 2020.

#### JOURNAL PAPERS

- [J3] M Rigter, **J Yamada**, I Posner, "World Models via Policy-Guided Trajectory Diffusion", Transaction of Machine Learning Research (TMLR), 2024
- [J2] O P Jones, A L Mitchell, **J Yamada**, W Merkt, M Geisert, I Havoutis, I Posner, "Oscillating latent dynamics in robot systems during walking and reaching", *Scientific Reports*, 2024
- [J1] J Collins\*, M Robson\*, **J Yamada**\*, M Sridharan, K Janik, I Posner, "RAMP: A Benchmark for Evaluating Robotic Assembly Manipulation and Planning", *Robotics and Automation Letters* (RA-L), 2023

## **TECHNICAL PAPERS**

- [T1] **J Yamada**, A L Mitchell, J Collins, I Posner, "COMBO-Grasp: Learning Constraint-Based Manipulation for Bimanual Occluded Grasping", *arXiv Preprint arXiv: 2502.08054*
- [T2] **J Yamada**, A Murali, A Mandlekar, C Eppner, I Posner, B Sundaralingam, "Grasp-MPC: Adaptive Visual Grasping via Model-Predictive Reinforcement Learning", *Under review*
- [T3] A Murali, B Sundaralingam, Y Chao, **J Yamada**, W Yuan, M T. Carlson, F Ramos, D Fox, C Eppner "GraspGen: A Diffusion-based Framework for 6-DOF Grasping", *Under review*
- [T4] **J Yamada**, Shaohong Zhong, J Collins, I Posner, "D-Cubed: Latent Diffusion Trajectory Optimisation for Dexterous Deformable Manipulation", *arXiv Preprint arXiv: 2403.12861*

#### PROFESSIONAL AND RESEARCH EXPERIENCE

**NVIDIA - Seattle Robotics Lab** · United States

07/2024 - 10/2024

Research Intern supervised by Dr. Balakumar Sundaralingam, Dr. Ajay Mandlekar, Dr. Adithya Murali, and Dr. Yashraj Narang

**OMRON SINIC X, Inc.** · Tokyo, Japan

03/2021 - 09/2021

Research Intern with Dr. Kazutoshi Tanaka and Dr. Masashi Hamaya

University of Southern California · , United States Visiting Researcher with Professor Joseph J. Lim

10/2019 - 10/2021

## **HONOURS AND AWARDS**

- Best Poster Award at The 4<sup>th</sup> UK Manipulation Workshop
- Scholarship: Learning Real-World Collaborative Assembly Tasks Through Observation, Action and Interaction

## REVIEWING SERVICE

- International Conference on Robotics and Automation (ICRA), 2023, 2024, 2025
- International Conference on Intelligent Robotics and Systems (IROS), 2023.
- International Conference on Ubiquitous Robots (UR), 2023
- Asian Conference on Machine Learning (ACML), Workshop on Machine Learning for Mobile Robot Vision and Control (MRVC), 2021.

#### TEACHING SERVICE

• B20 Machine Learning, Department of Engineering Science, University of Oxford

## PRESS COVERGAGE

• An open-source benchmark to evaluate the manipulation and planning skills of assembly robots, by Ingrid Fadelli, *Tech Explore*,