Toshinori Kitamura

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Education

The University of Tokyo — 2023

Department of Technology Management for Innovation, D1, GPA: N/A

- **Nara Institute of Science and Technology (NAIST)**, GPA: 3.3/4.0 — Graduate School of Science and Technology
- **Keio University**, GPA: 3.3/4.0 — *Faculty of Science and Technology (System Design Engineering)*
- **University of California Davis**, GPA: 3.9/4.0 — ***Dean's List**, Exchange student 2018-2019*

Experience and Publications

The University of Tokyo Matsuo Lab — 2022-

Reinforcement Learning (RL) Research

- "Regularization and Variance-Weighted Regression Achieves Minimax Optimality in Linear MDPs: Theory and Practice"
  - **Toshinori Kitamura**, Tadashi Kozuno, Yunhao Tang, et al., **ICML 2023**
- "KL-Entropy-Regularized RL with a Generative Model is Minimax Optimal"
  - Tadashi Kozuno, Wenhao Yang, Nino Vieillard, **Toshinori Kitamura**, et al., Arxiv 2022

Integral AI, Inc. — 2022

Full-time AI Engineer

NAIST Robot Learning Laboratory — 2020-2021

RL Research

- "Geometric Value Iteration: Dynamic Error-Aware KL Regularization for Reinforcement Learning"
  - **Toshinori Kitamura**, Lingwei Zhu, Takamitsu Matsubara, submitted to **ACML 2021**, under-review
- "Cautious Actor-Critic: Stable off-policy deep reinforcement learning for continuous control"
  - Lingwei Zhu, **Toshinori Kitamura**, Takamitsu Matsubara, **ACML 2021**

OMRON SINIC X Corporation — 2021

RL Research Intern

- "ShinRL: A Library for Evaluating RL Algorithms from Theoretical and Practical Perspectives"
  - **Toshinori Kitamura**, Ryo Yonetani, NeurIPS RL Workshop 2022

National Institute of Advanced Industrial Science and Technology (AIST) — 2019-2020

Research Intern

- Researched deep RL with model predictive control for mobile robot in human crowds.

Laboratory of Chen-Nee Chuah (UC Davis) — 2019

Research

- Researched traffic congestion reduction using multi-agent RL and imitation learning.

Mira Robotics, Inc. — 2018

Software & Hardware Engineer Intern

- Helped develop robots, LIDAR and Object Detection Algorithm. Developed fusion360 add-in for ROS.

Projects

ShinRL: `https://github.com/omron-sinicx/ShinRL` — 2021-2022

- ShinRL: A Library for Evaluating RL Algorithms from Theoretical and Practical Perspectives.

PyTorch-RL-IL: `https://github.com/syuntoku14/pytorch-rl-il` — 2020

- A PyTorch Library for Building Reinforcement Learning and Imitation Learning Agents.

fusion2urdf: `https://github.com/syuntoku14/fusion2urdf` — 2018

- A fusion360 add-in which converts fusion360 model to urdf(Universal Robotic Description Format) file.

Marlo Competition (UC Davis) — 2018

- RL competition to solve Minecraft. Researched deep reinforcement learning techniques.

NHK robot competition (Keio university) — 2018

- Developed Kinect-V2 software that can recognize and react to objects.