Makoto Sato

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Education

Nara Institute of Science and Technology (NAIST) *2022-*

Graduate School of Advanced Science and Technology / Information Science

Saitama University *2018-2022*

Faculty of Engineering / Department of Mechanical Engineering and System Design, GPA: 3.15/4.0

Experience

Matsuo Institute, Inc. *2020-2023*

Part-time Engineer

- "Imitation Learning with Mid-Level Representations for Object Rearrangement"
  - **Makoto Sato**, Ryosuke Unno, Hiroki Furuta, Tatsuya Matsushima, Ryo Okada, Pavel Savkin, Genki Sano, Yutaka Matsuo, **JSAI2022**
- "Scaling Laws of Model Size for World Models"
  - **Makoto Sato**, Ryosuke Unno, Masahiro Negishi, Koudai Tabata, Taiju Watanabe, Junnosuke Kamohara, Taiga Kume, Ryo Okada, Yusuke Iwasawa, Yutaka Matsuo, **JSAI2023**
- "Scaling Laws of Dataset Size for VideoGPT"
  - Masahiro Negishi, **Makoto Sato**, Ryosuke Unno, Koudai Tabata, Taiju Watanabe, Junnosuke Kamohara, Taiga Kume, Ryo Okada, Yusuke Iwasawa, Yutaka Matsuo, **JSAI2023**
- "Construction and Validation of Action-Conditioned VideoGPT"
  - Koudai Tabata, Junnosuke Kamohara, Ryosuke Unno, **Makoto Sato**, Koshi Makihara, Ryo Okada, Yusuke Iwasawa, Yutaka Matsuo, **JSAI2023**

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

Research Member

- A Study of Learning Object Grasping Motion for Robots using Reinforcement Learning.

Projects

Large-Scale World Models *2022-2023*

- A Study of Scaling Laws for Large-Scale World Models.

Long-Horizon Manipulation with Task and Motion Planning *2022-2023*

- A Study of Robot Motion Planning using Task and Motion Planning for Long-Horizon Tasks.

Locomotion via Reinforcement Learning: *2022*

`https://github.com/makolon/unitree-a1-dreamer`

- A Study on Learning Locomotion by Sim2Real Reinforcement Learning for Quadruped Robots.

Multimodal Object Identification: *2022*

`https://github.com/makolon/multimodal_siamese_network`

- A Study of Object Localization using Multimodal Image and Tactile Information.

Vision-based Imitation Learning *2020-2022*

- A Study of Learning Object Manipulation using Image-Based Imitation Learning in Clutter Environment.

Skills

Knowledge	Task and Motion Planning, Physics Simulator, Imitation Learning, Reinforcement Learning, Foundation Model, Optimal Control
Languages	Python, C++, JavaScript
Frameworks	PyTorch, Tensorflow, Jax, ROS, Docker
Simulators	Isaac Sim, PyBullet, MuJoCo, Drake, Gazebo, CARLA