Masaki Kawamura

Student at Institute of Science Tokyo

@ k.masaki@rio.scrc.iir.isct.ac.jp | masakichi210.github.io | @Masakichi333210
masaki-kawamura-0806a7361 | KMasaki0210 | +81 80 8295 0659

EDUCATION

Institute of Science Tokyo

Tokyo, Japan 2025 – 2027 (expected)

- Formerly Tokyo Intitute of Technology

Institute of Science Tokyo

Tokyo, Japan 2022 – 2025

- Earned a Bachelor's degree one year early.

Sapporo Kita High School

Hokkaido, Japan 2019 – 2022

EXPERIENCE

Research Engineer

Turing inc. Jun 2026 – Present Tokyo, Japan

Keywords: *Automonous Driving, Vision Language Action Model*

- Developing vision-language-action models (VLA) for autonomous driving.

Research Engineer (Intern)

Turing inc. Apl 2026 – Jun 2026 Tokyo, Japan

Keywords: *Automonous Driving, Vision Language Action Model*

- Developing vision-language-action models (VLA) for autonomous driving.

Researcher (Intern)

SB Intuitions Feb 2025 – Mar 2026 Tokyo, Japan

Keywords: *Vision Launguage Model, Captioning*

- Developed dense captioning models, using reinforcement learning to improve caption quality and factual consistency.

Technical Assistant and Research Assistant

National Institute of Advanced Industrial Science and Technology (AIST) Feb 2024 – Jun 2026 Tokyo, Japan

Keywords: *Vision Launguage Model, CLIP*

- Conducting research on fine-grained CLIP models by combining object detection and caption parsing to learn detailed object features and relationships.

Backend Engineer (Intern)

Money Forward Aug 2025 (2weeks) Tokyo, Japan

Keywords: *Backend, Ruby*

- Developed a Ruby-based backend module for an enterprise accounting system.

Research Assistant

National Institute of Infomatics (NII) Nov 2024 - Mar 2025 Tokyo, Japan

Keywords: *Lauge Language Model, Synthetic Data*

- Fine-tuned LLMs for task and developed synthetic datasets to improve training efficiency and performance.

PROJECTS

Swallow LLM - *Swallow LLM is a series of Japanese-specialized large language models developed through continual pre-training. In the development of the Swallow series, responsible for building large-scale code corpora and constructing supervised fine-tuning (SFT) datasets for reasoning tasks.*

PUBLICATIONS

***Masaki Kawamura**, Nakamasa Inoue, Rintaro Yanagi, Hirokatsu Kataoka, Rio Yokota. PowerCLIP: Powerset Alignment for Contrastive Pre-Training. Computer Vision and Pattern Recognition (CVPR), 2026.*

*Kazuki Fujii, Yukito Tajima, Sakae Mizuki, **Masaki Kawamura**, Hinari Shimada, Taihei Shiotani, Koshiro Saito, Masanari Oi, Taishi Nakamura, Takumi Okamoto, Shigeki Ishida, Kakeru Hattori, Youmi Ma, Hiroya Takamura, Rio Yokota, Jun Sakuma, Naoaki Okazaki. Rewriting Pre-Training Data Boosts LLM Performance in Math and Code. International Conference on Learning Representations (ICLR), 2026.*

*Taishi Nakamura, Satoki Ishikawa, **Masaki Kawamura**, Takumi Okamoto, Daisuke Nohara, Jun Suzuki, Rio Yokota. Optimal Sparsity of Mixture-of-Experts Language Models for Reasoning Tasks. International Conference on Learning Representations (ICLR) Oral, 2026.*

SKILLS

***Languages: Python**, Ruby, C++, JavaScript*

***Frameworks & Tools:** Proficient in ML frameworks (PyTorch, NumPy)*

***Research Topics:** LLM training (Continual Pretraining, SFT, GRPO, MoE), VLMs (CLIP, MLLMs), VLA*

Experienced in developing and optimizing LLMs, with a focus on Swallow models, Mixture of Experts (MoE) architectures, Test-Time Compute (TTC), and post-training techniques, such as GRPO. Skilled in both high-level VLM architectures and low-level vision-language representation learning, including CLIP. More recently, also conducting research on VLA models.