

Naoto Iwase

Nagoya, Japan

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RESEARCH INTERESTS

Reliable LLM reasoning; statistical inference and decision-making for test-time computation; medical AI.

EDUCATION

Nagoya University

2021 – 2027 (expected)

School of Medicine · Six-year medical program

- Entered with the highest score in the entrance examination and delivered the matriculation address.

PREPRINTS

Reliable Chain-of-Thought via Prefix Consistency

2026

Naoto Iwase, Yuki Ichihara, Mohammad Atif Quamar, and Junpei Komiyama

Scores reasoning traces by answer stability under prefix regeneration, reducing tokens to plateau accuracy by up to 21×.

CITE: Anytime-Valid Statistical Inference in LLM Self-Consistency

2026

Hirofumi Ota, Naoto Iwase, Yuki Ichihara, Junpei Komiyama, and Masaaki Imaizumi

Certifies a prespecified answer as the unique mode under adaptive stopping with anytime-valid error control, without knowing the response set in advance.

MedRECT: A Medical Reasoning Benchmark for Error Correction in Clinical Texts

2025

Naoto Iwase, Hiroki Okuyama, and Junichiro Iwasawa

Introduces a bilingual benchmark for detecting and correcting errors in clinical text and shows a strong advantage for reasoning models.

RESEARCH EXPERIENCE

Research Collaborator

Jan 2026 – Present

Mohamed bin Zayed University of Artificial Intelligence · Incoming Visiting Student

- Conducting research with Prof. Junpei Komiyama on reliable LLM reasoning, including prefix-consistency evaluation and anytime-valid statistical inference for self-consistency.

Part-time Engineer

Jul 2025 – Jun 2026

Preferred Networks, Inc.

- Developed MedRECT, a bilingual benchmark for detecting and correcting errors in clinical records.
- Prototyped LLM agents for pharmaceutical R&D workflows.

Technical Assistant

Oct 2023 – Jun 2025

Institute of Science Tokyo · Computational Systems Biology Laboratory

- Developed multimodal pathology models combining GATv2, Transformers, and GigaPath, improving cell niche classification accuracy from 72.5% to 86.0%.
- Developed hierarchical VAE-based cell-state representations and multi-task models across more than 600 TCGA pathology slides.

AWARDS & HONORS

Excellent Poster Presentation Award

Jun 2026

8th Annual Meeting of the Japanese Association for Medical Artificial Intelligence

Outstanding Performance Award (S grade)

Jan 2025

Japan Statistical Society Certificate · Pre-1st Grade

Student Presentation Award (Oral)

May 2024

38th Annual Meeting of the Japanese Society of Computational Statistics

SELECTED PRESENTATION

A Deep Learning Model to Estimate Cell Niches from H&E Pathological Images

Sep 2024

Naoto Iwase, Shuto Hayashi, and Teppei Shimamura · Poster · ECCB2024

TECHNICAL SKILLS

Programming & ML: Python; PyTorch, Transformers, TRL/PEFT, vLLM

Systems: Docker, Kubernetes, Argo Workflows, Git, Linux