

Hiroki Azuma

Japanese

English

HIROKI AZUMA



I am Hiroki Azuma, a first-year master's student in the Department of Information & Communication Engineering at the Graduate School of Information Science and Technology, The University of Tokyo. I am a member of the Aizawa, Yamakata, and Matsui Labs, conducting research in Computer Vision. I have interests in machine learning, MLOps, infrastructure development, and backend development.

[Github](#) / [Google Scholar](#) / [CV](#)

Education

- **The University of Tokyo (Master, Japan)**

Master's Program in Information & Communication Engineering, Matsui Lab.
2023.4 ~ Present

- **KTH Royal Institute of Technology (Exchange, Sweden)**

Division of Robotics, Perception and Learning (RPL)
2023.8 ~ Present

- **The University of Tokyo (Bachelor, Japan)**

Bachelor of Computer Science in Electrical Engineering & Information Communication
2019.4 ~ 2023.3

Projects

- **Development of Human Flow Digital Twins Generated from Camera Images**

Accepted for "2023rd MITOU Advanced Program" from Information-technology Promotion Agency (IPA), Japan (Contract price: 14,400,000 yen).

I am in charge of a software development product manager and machine learning model advisor (I couldn't become a regular member due to living abroad).

[Details](#)

- **Development of a Real-time Visualization and Forecasting System for the Number of Containers and Delay Times at Ports**

Passed the first round of "NEDO Supply Chain Data Challenge (2023)" from New Energy and Industrial Technology Development Organization (NEDO). But we did not win in the final competition.

I was responsible for building machine learning models as an image processing engineer.

[Details](#)

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- **Defense-Prefix for Preventing Typographic Attacks on CLIP**

Hiroki Azuma, Yusuke Matsui

[ICCV2023 Workshop](#), [Best Paper Award](#)

[Paper](#) / [Code](#)

Domestic (Japan)

- **CLIPにおけるタイポグラフィック攻撃を防ぐPrefix学習**

東大樹, 松井勇佑

[MIRU2023](#), [Long Oral \(Acceptance rate: approximately 16%\)](#), [MIRU Student Best Paper Award](#)

- **Typographic attackを防ぐDefense-Prefixの学習**

東大樹, 松井勇佑

[IEICE General Conference 2023](#)

Awards

- 2023.10 Best Paper Award @ICCV Workshop 2023
- 2023.7 Best Student Paper Award @MIRU 2023

Internship

- 2022.4 ~: [Function](#)

Fullstack software development (Next.js, Python, Terraform, GCP) / Image processing with object detection models (Pytorch)

- 2023.1 ~ 2023.7: [mutex](#)

Development of retrieval systems using large language models (Python)

- 2022.11 ~ 2023.1: [cellid](#)

Improvement of the performance about 3D reconstruction with SfM (Python)

- 2021.8 ~ 2021.9: [cocone](#)

Backend, API development (Java)

Scholarships

- 日本学生支援機構(JASSO)2023年度海外留学支援制度(協定派遣)奨学金

Language

Japanese (Native), English (Academic Level)

Others

- TOEFL 90 (2023.5)
- [VSCode-Extension](#)(Typescript)
- [House-App](#)(Vue.js, d3.js)