

# Yuri Ishitoya

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## EDUCATION

### Ochanomizu University

*M.S. in Information Science* (Advisor: Prof. Ichiro Kobayashi)

Tokyo, JPN  
Apr 2025 – Present

- GPA: 4.0/4.0

### Ochanomizu University

*B.S. in Information Science* (Advisor: Prof. Ichiro Kobayashi)

Tokyo, JPN  
Apr 2021 – Mar 2025

- GPA: 3.8/4.0

## RESEARCH EXPERIENCE

### OMRON SINIC X Corporation

*Full Time Research Intern* (Advisor: Dr. Mai Nishimura)

Tokyo, JPN  
Incoming (Jan 2026)

- Knowledge distillation for LLMs and VLMs (representation-level analysis).

### Ochanomizu University

*M.S. Researcher, Computer Science* (Advisor: Prof. Ichiro Kobayashi)

Tokyo, JPN  
Apr 2025 – Present

- Developed embedding-level bias mitigation techniques by mapping concept vectors from hidden states to output embeddings and manipulating dimensions that control token probability distributions.

### vislang at Rice University

*Visiting Student* (Advisor: Prof. Vicente Ordóñez Román)

Texas, USA  
Feb 2025 – Aug 2025

- Created a benchmark to evaluate how VLM scale influences associative reasoning and bias.
- Led a comprehensive evaluation of 39 vision-language models across classification, bias assessment, and identity verification tasks [1].

### Artificial Intelligence Research Center at Fujitsu Laboratories Ltd.

*Short-term Research Intern* (Advisor: Dr. Hiroya Inakoshi)

Tokyo, JPN  
Aug 2024

- Designed prompt-based personality conditioning techniques and evaluation metrics to control and measure persona attributes in LLM-generated training data for bias detection, as part of a fair AI recruitment interview system [2, 3].
- Presented findings at the Fujitsu Small Research Lab National Conference 2024 (Tokyo, JPN).

### Ochanomizu University

*B.S. Researcher, Computer Science* (Advisor: Prof. Ichiro Kobayashi)

Tokyo, JPN  
Apr 2024 – Mar 2025

- Developed a frequency-based bias detection method by applying Discrete Fourier Transform (DFT) to log-likelihood sequences, isolating stable low-frequency components that capture subtle gender bias beyond probability-gap analyses [4].

### Ochanomizu University

*Pre-Graduation Undergraduate Research Project* (Advisor: Prof. Takayuki Itoh)

Tokyo, JPN  
Apr 2023 – Mar 2024

- Analyzed gender gap factors across 47 prefectures in Japan by collecting and screening over 300 regional datasets to identify correlations and latent structures underlying disparities[5].

## PUBLICATIONS

### Refereed / Under Review

1. **Ishitoya, Yuri**, Flores, V., Yang, Z., Cascante-Bonilla, P. & Ordonez, V. *Evaluating Vision-Language Models through a Human-Centered Benchmark* Under revision for resubmission to ACL Rolling Review. 2025.

### Non-refereed

2. Ishida, K., **Ishitoya, Yuri**, Kobayashi, I. & Igarashi, Y. *A Study on the Usefulness of an Interviewer Support System that Points Out Gender-Based Judgments* in *Proceedings of the 212th Human-Computer Interaction Study Group (IPSJ SIG-HCI)* Non-refereed, in Japanese (2025).

3. Ishida, K., **Ishitoya, Yuri**, Kobayashi, I. & Igarashi, Y. *Proposal and Development of an AI Interviewer Support System that Points Out Gender-Based Judgments in Proceedings of the 39th Annual Conference of the Japanese Society for Artificial Intelligence (JSAI2025)* Non-refereed, in Japanese (2025).
4. **Ishitoya, Yuri** & Kobayashi, I. *A Study on Detecting Subtle Biases by Expanding the Log-Likelihood into a Frequency Space in Proceedings of the 39th Annual Conference of the Japanese Society for Artificial Intelligence (JSAI2025)* Non-refereed, in Japanese (2025).
5. **Ishitoya, Yuri** & Ito, T. *Analysis of the Causes of the Gender Gap through Data Comparison and Visualization by the 47 Prefectures in Proceedings of the 38th Annual Conference of the Japanese Society for Artificial Intelligence (JSAI2024)* Non-refereed, in Japanese (2024).

## FELLOWSHIP & GRANTS

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<b>Tobitate! Study Abroad Scholarship</b> , Japan Ministry of Education (JPY 670k grant, 22% acceptance rate)	2025
<b>MITOU IT Program</b> , IPA (JPY 2.74M grant, 13% acceptance rate)	2023
<b>Women Leaders Support Fund</b> , Public Resource Foundation (JPY 1.0M grant, 6.8% acceptance rate)	2023

## HONORS & AWARDS

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<b>Oin-kai Research Encouragement Award</b> , Ochanomizu University	2025
<b>Pre-Graduation Research Excellence Award</b> , Ochanomizu University	2024
<b>Finalist Award / Innovator Certification / Yamareco Inc. Award</b> , JPHACKS	2023
<b>Best Teamwork Award</b> , Google Hardware Hackathon	2023
<b>First Runner-up</b> , Giiku CAMP vol.8 Hackathon	2023
<b>Finalist Award / Innovator Certification / Nokia Solutions &amp; Architecture Award / Special Recognition</b> , JPHACKS	2022

## INDUSTRY EXPERIENCE

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<b>Yamada Shintaro D&amp;I Foundation (Public Interest Incorporated Foundation)</b> <i>Software Engineer</i>	Tokyo, JPN Nov 2024 – Present
<ul style="list-style-type: none"><li>Designed and developed an application and screening platform for a STEM scholarship program for female high school students.</li></ul>	
<b>Dots to Code Association</b> <i>Founder &amp; Representative Director</i>	Tokyo, JPN Jun 2024 – Apr 2025
<ul style="list-style-type: none"><li>Organized Japan’s largest hackathon for women and non-binary individuals.</li></ul>	
<b>NPO, Waffle.org</b> <i>Intern</i>	Tokyo, JPN Apr 2022 – Nov 2023
<ul style="list-style-type: none"><li>Delivered programming curricula to 500+ female students and conducted data analysis for annual report.</li></ul>	

## SERVICE

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<b>Teaching</b> <ul style="list-style-type: none"><li>Teaching Assistant, Ochanomizu University: Introduction to Natural Language Theory</li></ul>
<b>Diversity, Equity, &amp; Inclusion (DEI) Leadership</b> <ul style="list-style-type: none"><li>Co-founder, Blend Gendered Innovation Initiative (2023-Current)</li><li>Co-founder, OchaHack (2023)</li></ul>

## SKILLS

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- **Programming Languages:** Python, JavaScript (Vue.js, React, Node.js), C, Java, OCaml, R, Dart (Flutter), CUDA
- **AI/ML & NLP:** PyTorch, Hugging Face Transformers, scikit-learn, NLTK, SpaCy, NNSight
- **Tools & Platforms:** Firebase, MongoDB, Postman, Docker, Git, LaTeX