# Ryosuke Korekata

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## Education

**Keio University**                                                    **Sep. 2024 – Present**
*Ph.D. Student of Open and Environmental Systems in Computer Science*            *Kanagawa, Japan*

**Keio University**                                                    **Apr. 2023 – Sep. 2024**
*Master of Open and Environmental Systems in Computer Science*                    *Kanagawa, Japan*
- GPA: 3.93/4.00

**Keio University**                                                    **Apr. 2019 – Mar. 2023**
*Bachelor of Science and Engineering in Computer Science*                        *Kanagawa, Japan*
- GPA: 3.88/4.00

## Experience

**Keio University**                                                    **Oct. 2023 – Present**
*Teaching Assistant*                                                            *Kanagawa, Japan*

**Toyota Motor Corporation Frontier Research Center**                  **Aug. 2023 – Sep. 2023**
*Research Internship*                                                              *Aichi, Japan*

**Keio University**                                                    **Apr. 2023 – Present**
*Research Assistant*                                                            *Kanagawa, Japan*

**Sony Corporation**                                                   **Aug. 2021 - Sep. 2021**
*Software Engineer Internship*                                                      *Tokyo, Japan*

**Keio University AI and Advanced Programming Consortium**             **Oct. 2019 – Present**
*Education Internship*                                                          *Kanagawa, Japan*

## Publications

**Journal**

- K. Kaneda, S. Nagashima, R. Korekata, M. Kambara, K. Sugiura, "Learning-To-Rank Approach for Identifying Everyday Objects Using a Physical-World Search Engine," **IEEE RA-L**, Vol. 9, No. 3, pp. 2088–2095, 2024. DOI: 10.1109/LRA.2024.3352363 (**IF: 5.2**)

**International Conference**

- K. Kaneda, S. Nagashima, ◯R. Korekata, M. Kambara, K. Sugiura, "Learning-To-Rank Approach for Identifying Everyday Objects Using a Physical-World Search Engine," IEEE RA-L presented at **IEEE/RSJ IROS**, 2024.
- ◯R. Korekata, K. Kanda, S. Nagashima, Y. Imai, K. Sugiura, "Multimodal Ranking for Target Objects and Receptacles Based on Open-Vocabulary Instructions," **IEEE ICRA** (Late Breaking Results), 2024.
- ◯R. Korekata, M. Kambara, Y. Yoshida, S. Ishikawa, Y. Kawasaki, M. Takahashi, K. Sugiura, "Switching Head–Tail Funnel UNITER for Dual Referring Expression Comprehension with Fetch-and-Carry Tasks", **IEEE/RSJ IROS**, pp. 3865–3872, 2023. DOI: 10.1109/IROS55552.2023.10342165 (**h5-index: 86**)
- K. Kaneda⋆, R. Korekata⋆, Y. Wada⋆, S. Nagashima⋆, ◯M. Kambara, Y. Iioka, H. Matsuo, Y. Imai, T. Nishimura, K. Sugiura, "DialMAT: Dialogue-Enabled Transformer with Moment-Based Adversarial Training", **IEEE/CVF CVPR** (Embodied AI Workshop), 2023. (⋆**equal contribution**, **1st Place in DialFRED Challenge**)
- ◯R. Korekata, Y. Yoshida, S. Ishikawa, K. Sugiura, "Switching Funnel UNITER: Multimodal Instruction Comprehension for Object Manipulation Tasks", **IEEE/RSJ IROS** (Late Breaking Results), 2022.

# Awards / Fellowships / Scholarships

## Awards
- S. Nagashima, <u>R. Korekata</u>, K. Kaneda, K. Sugiura, Toyota Motor Corporation HSR Community Best Paper Award, The 41st Annual Conference of the Robotics Society of Japan, 12 Sep. 2023.
- K. Kaneda⋆, <u>R. Korekata⋆</u>, Y. Wada⋆, S. Nagashima⋆, M. Kambara, Y. Iioka, H. Matsuo, Y. Imai, T. Nishimura, K. Sugiura, 1st Place in **IEEE/CVF CVPR** 2023 Embodied AI Workshop DialFRED Challenge, 19 Jun. 2023. (⋆equal contribution)
- <u>R. Korekata</u>, Nakanishi Encouragement Award, Department of Information and Computer Science, Faculty of Science and Technology, Keio University, 23 Mar. 2023. (Excellent bachelor's thesis in the department)
- <u>R. Korekata</u>, Commendation for Academic Excellence, Keio University, 10 Mar. 2023. (The best honors student in the department)
- M. Kambara, Y. Yoshida, K. Kaneda, S. Otsuki, <u>R. Korekata</u>, H. Matsuo, Y. Wada, W. Yang, K. Sugiura, Honorable Mention Award, REVERIE Challenge @ CSIG 2022, 19 Aug. 2022.
- <u>R. Korekata</u>, Education Contribution Award, Keio University AI and Advanced Programming Consortium, 24 Mar. 2021.
- <u>R. Korekata</u>, N. Shibahara, R. Ishioka, K. Kojo, T. Naoi, 2nd Place in Image Processing Contest using Raspberry Pi, SICK Japan Co. Ltd., 18 Dec. 2019.
- <u>R. Korekata</u>, T. Okunishi, H. Sugimoto, G. Nakamura, H. Yamaguchi, 1st Place Award in Artificial Intelligence Implementation Contest, Fuji Xerox Co. Ltd., 28 Nov. 2019.

## Fellowships
- JSPS Research Fellowship for Young Scientists (DC1), **JPY 200,000/month**, Apr. 2025 – Mar. 2028.
- JST Broadening Opportunities for Outstanding young researchers and doctoral students in STrategic areas (BOOST), **JPY 300,000/month**, Oct. 2024 – Mar. 2025.

## Scholarships
- Repayment Exemption of JASSO Scholarship (Category 1), **JPY 1,584,000**, Apr. 2023 – Sep. 2024.
- Keio Graduate School Scholarship, **JPY 500,000**, 2024.
- Keio Graduate School Scholarship, **JPY 500,000**, 2023.
- DENTSU Scholarship Foundation for Graduate Students, **JPY 1,440,000**, Apr. 2023 – Sep. 2024.
- Keio University Scholarship, **JPY 250,000**, 2022.
- Keio University Faculty of Science and Technology Alumni Association Scholarship, **JPY 600,000**, 2022.
- Keio University Scholarship, **JPY 250,000**, 2021.
- Keio University Faculty of Science and Technology Alumni Association Scholarship, **JPY 600,000**, 2021.
- Fudosan Mita-kai Scholarship, **JPY 100,000**, 2020.
- Keio University Scholarship, **JPY 500,000**, 2020.
- Keio University Iji-kai Scholarship, **JPY 800,000**, 2019.
- DENTSU Scholarship Foundation for Undergraduate Students, **JPY 3,360,000**, Apr. 2019 – Mar. 2023.

# Projects

**AWS Robot Delivery Challenge 2020**                                    **Mar. 2020 – Sep. 2020**
- Development of a mobile robot navigation system with teammates.
- 2nd place in semi-final and 4th place in final. (Out of 118 teams)

**NHK Robocon 2020**                                                     **Oct. 2019 – Aug. 2021**
- Implemented a software architecture for a rugby robot with teammates.
- 5th place, Team Ilias from Keio University. (Out of 24 teams)

# Skills

**Programming** : Python, C/C++, Kotlin, Java, GAS, JavaScript, Bash, AWK, SQL, HTML, CSS
**Machine Learning Tools** : Pytorch, TensorFlow2, Keras, Scikit-learn, Pandas, Numpy, OpenCV
**Software Tools** : Git, GitHub/GitLab, Docker, ROS, Gazebo, AWS, VSCode, Android Studio, Eclipse
**Operating Systems** : Linux (Ubuntu/WSL), Windows
**Others** : TOEIC: 800, AtCoder: 1108, Amateur First-Class Radio Operator, Deep Learning for GENERAL, Driver's license in Japan