# ATAUMOTO OHASHI

Nagoya, Japan 俞

ohashi.atsumoto.c0@s.mail.nagoya-u.ac.jp ≥

@atsumoto ohashi 💆

https://atsumoto.github.io



# RESEARCH INTERESTS

I am Atsumoto Ohashi, a Ph.D. candidate in Informatics at Nagoya University, with a primary research focus on dialogue systems. My work has centered on optimizing **task-oriented dialogue systems** through the integration of NLP and **reinforcement learning techniques** (EMNLP 2023, NAACL 2024, and AAAI 2025). Recently, my research interests have expanded to spoken language models and **full-duplex spoken dialogue systems** (INTERSPEECH 2025) for real-time and more natural conversational experiences.



## **EDUCATION**

## Ph.D. Student in Informatics | Nagoya University

APRIL 2023 - PRESENT

Advised by Prof. Ryuichiro Higashinaka

## M.S. of Informatics | Nagoya University

APRIL 2021 - MARCH 2023

- Advisor: Prof. Ryuichiro Higashinaka
- Thesis: Optimizing Task-oriented Pipeline Dialogue Systems via Reinforcement Learning
- GPA: 4.0 on a 4.0 scale

#### **B.S. of Informatics | Nagoya University**

APRIL 2017 - MARCH 2021

- Advised by Prof. Ryuichiro Higashinaka
- Thesis: Module-Linked Dialogue System Adapting to Users and Dialogue Situations



# **SELECTED PUBLICATIONS**

(\* Equal contribution)

#### **International Conferences (refereed)**

- <u>Atsumoto Ohashi</u>, Shinya Iizuka, Jingjing Jiang, and Ryuichiro Higashinaka. "Towards a Japanese Full-duplex Spoken Dialogue System," The 26th Interspeech Conference (INTERSPEECH 2025)
- <u>Atsumoto Ohashi</u> and Ryuichiro Higashinaka. "Universal Post-Processing Networks for Joint Optimization of Modules in Task-Oriented Dialogue Systems," The 39th Annual AAAI Conference on Artificial Intelligence (AAAI 2025)

- <u>Atsumoto Ohashi</u>, Ukyo Honda, Tetsuro Morimura and Yuu Jinnai. **"On the True Distribution Approximation of Minimum Bayes-Risk Decoding,"** The 2024 Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL 2024**)
- <u>Atsumoto Ohashi</u>\*, Ryu Hirai\*, Shinya Iizuka and Ryuichiro Higashinaka. "JMultiWOZ: A Large-Scale Japanese Multi-Domain Task-Oriented Dialogue Dataset," The 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)
- <u>Atsumoto Ohashi</u> and Ryuichiro Higashinaka. **"Enhancing Task-oriented Dialogue Systems with Generative Post-processing Networks,"** *The 2023 Conference on Empirical Methods in Natural Language Processing* **(EMNLP 2023)**, pages 3815–3828.
- Ao Guo, <u>Atsumoto Ohashi</u>, Yuya Chiba, Yuiko Tsunomori, Ryu Hirai and Ryuichiro Higashinaka.
  "Personality-aware Natural Language Generation for Task-oriented Dialogue using Reinforcement Learning," The 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023)
- <u>Atsumoto Ohashi</u> and Ryuichiro Higashinaka. "Adaptive Natural Language Generation for Taskoriented Dialogue via Reinforcement Learning," The 29th International Conference on Computational Linguistics (COLING 2022), pages 242–252.
- <u>Atsumoto Ohashi</u> and Ryuichiro Higashinaka. "Post-processing Networks: A Method for Optimizing Pipeline Task-oriented Dialogue Systems using Reinforcement Learning," *The 23rd Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL 2022)*, pages 1–13.
- Ao Guo, <u>Atsumoto Ohashi</u>, Ryu Hirai, Yuya Chiba, Yuiko Tsunomori and Ryuichiro Higashinaka. "Influence of user personality on dialogue task performance: A case study using a rule-based dialogue system," *The 3rd Workshop on Natural Language Processing for Conversational Al* (*NLP4ConvAl 2021*), pages 263–270.



## **HONORS AND AWARDS**

# Young Researcher Encouragement Award (18/406)

**MARCH 2023** 

The 29th Annual Meeting of the Association of Natural Language Processing (NLP2023)

#### Sponsor Award (5/386)

**MARCH 2022** 

The 28th Annual Meeting of the Association of Natural Language Processing (NLP2022)

#### **Committee Special Award (16/365)**

MARCH 2022

The 28th Annual Meeting of the Association of Natural Language Processing (NLP2022)

#### **Outstanding Academic Achievement**

**APRIL 2018** 

Department of Computer Science, Nagoya University

#### **Chinese Speech Contest 4th Prize**

DECEMBER 2017

Nanjing University Cup, Nagoya University



# **Towards Understanding Performance Variability in MBR Decoding**

**JUNE 2024** 

The 59th NLP Colloquium

#### **EMNLP 2023 Conference Report**

DECEMBER 2023

The 14th Dialogue Systems Symposium. The 99th Meeting of Special Interest Group on Spoken Language Understanding and Dialogue Processing (SIG-SLUD99)

#### SIGDIAL 2022 & YRRSDS 2022 Conference Report

DECEMBER 2022

The 13rd Dialogue Systems Symposium. The 96th Meeting of Special Interest Group on Spoken Language Understanding and Dialogue Processing (SIG-SLUD96)



## **S** SCHOLARSHIP AND GRANTS

#### JSPS Research Fellowship for Young Scientists (DC2)

APRIL 2025 - MARCH 2027

- Research Immersion Support: 200,000 yen / month
- Research Expenses: 800,000 yen / year

## Nagoya University Interdisciplinary Frontier Fellowship

APRIL 2023 - MARCH 2026

- Research Immersion Support: 180,000 yen / month
- Research Expenses: 250,000 yen / year



### EXPERIENCES

#### Research Intern at Kyutai

SEPTEMBER 2025 - PRESENT

#### Research Assistant at National Institute of Informatics (NII)

JUNE 2025 - SEPTEMBER 2025

• I am working on the development of spoken dialogue models as a research assistant at the Research and Development Center for Large Language Models (LLMC).

#### **Workshop Organizer for YRRSDS 2024**

JUNE 2024 - SEPTEMBER 2024

• I worked as an organizing committee member for Young Researchers' Roundtable on Spoken Dialogue Systems (YRRSDS 2024), where I contributed to creating the program and facilitated discussions during workshop sessions.

### Research Intern at CyberAgent AI Lab

AUGUST 2023 – SEPTEMBER 2023

• I worked on improving minimum bayes risk (MBR) decoding for neural machine translation models.

#### **Dialogue Robot Competition 2022**

MAY 2022 – SEPTEMBER 2022

• Leading a team of seven members, we implemented a spoken dialogue system to control a humanoid robot.

# **Teaching Assistant for Intelligent Interface 2, Nagoya University**

JUNE 2022 – AUGUST 2022

• I prepared lecture materials and setup dialogue systems to be used in the class.

### **Short-term Study Abroad at Nanjing University, China**

FEBRUARY 2018 - MARCH 2018

• As a supplementary prize for winning a Chinese Speech Contest, I participated in a one-month language exchange program at Nanjing University in China.