

# AYANA NIWA

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## Ph.D. Student in Computer Science

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📍 Tokyo, Japan

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📌 ayaniwa

## EDUCATION

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### Tokyo Institute of Technology

#### Ph.D. Student in Computer Science

📅 Apr. 2020 –

📍 Tokyo, Japan

- Advised by Naoaki Okazaki. 🌐
- Main Research Topic : **Language Generation with Nearest Neighbors or Templates**

### Tokyo Institute of Technology

#### M.S. in Computer Science

📅 Apr. 2018 – Mar. 2020

📍 Tokyo, Japan

- Advised by Naoaki Okazaki. 🌐
- Thesis : **Corpus Construction and Structural Analysis of Antitheses Focusing on Rhetorical Devices of Advertisement Slogan**

### Sophia University

#### B.S. in Science Information

📅 Apr. 2014 – Mar. 2018

📍 Tokyo, Japan

- Advised by Takashi Irohara. 🌐
- Thesis : **Facility Location Problem Considering the Quality of Education in Developing Countries**
  - Focused on mathematical optimization/modeling, operational research, and production engineering.
- Also learned **educational curriculum and method**

## RESEARCH AND WORK EXPERIENCE

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### JSPS Research Fellow

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

📅 Apr. 2021 –

📍 Tokyo, Japan

- Research Theme: Structuring templates and acquiring lexical knowledge for text generation

### Internship and Outsourced Business

#### Megagon Labs, Recruit Co., Ltd

📅 June 2019 –

📍 Tokyo, Japan

- Currently working with the development team of GiNZA 🌐, which is an open source Japanese NLP library.
- Research Theme: Sentiment analysis

### Collaborative Research

#### CyberAgent, Inc.

📅 Sep. 2018 –

📍 Tokyo, Japan

- Currently working on the **Slogan Generation task**. We focus on the rhetorical devices to generate interesting slogans that attract customers.

### Research Assistant

#### Tokyo Institute of Technology

📅 Apr. 2018 –

📍 Tokyo, Japan

- Antonym prediction in the context
- Analysis and generation of rhetorical devices
- Corpus construction using crowdsourcing services

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## After school tutor

NeEds Inc.

📅 Mar. 2015 – Mar. 2017

📍 Tokyo, Japan

- Taught maths and English at a private tutoring school
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## After school tutor

Kawaijuku Group

📅 Apr. 2014 – Mar. 2018

📍 Tokyo, Japan

- Taught maths and worked as teaching assistant of summer classes at a private tutoring school
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# PUBLICATIONS AND PRESENTATIONS

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## 📄 Journal Articles

- **Niwa, A.**, Okazaki, N., Wakimoto, K., Nishiguchi, K., & Mouri, M. (2021). Construction of a corpus of rhetorical devices in slogans and structural analysis of antitheses. *ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP)*, (to appear).

## 👥 Domestic Conference and Symposium

- **Niwa, A.**, & Matsuda, H. (2021). A study for sentiment analysis accepting the diverse of emotion sensitivities. In *The 35th annual conference of the japanese society for artificial intelligence, 2020 (jsai2021)*, Online. Retrieved from [https://www.jstage.jst.go.jp/article/pjsai/JSAI2021/0/JSAI2021\\_2Yin506/\\_article/-char/ja/](https://www.jstage.jst.go.jp/article/pjsai/JSAI2021/0/JSAI2021_2Yin506/_article/-char/ja/)
- **Niwa, A.**, Nishiguchi, K., & Okazaki, N. (2021). Antonym prediction in context with bert. In *27th annual meeting of the association of natural language processing (nlp 2021)* (pp. 1702–1707). Kitakyushu, Japan / Online. Retrieved from [https://www.anlp.jp/proceedings/annual\\_meeting/2021/pdf\\_dir/C9-1.pdf](https://www.anlp.jp/proceedings/annual_meeting/2021/pdf_dir/C9-1.pdf)
- Nobori, N., Hiraoka, T., **Niwa, A.**, Nishiguchi, K., & Okazaki, N. (2021). Advertisement slogan generation considering company information. In *27th annual meeting of the association of natural language processing (nlp 2021)* (pp. 450–454). Kitakyushu, Japan / Online. Retrieved from [https://www.anlp.jp/proceedings/annual\\_meeting/2021/pdf\\_dir/B3-3.pdf](https://www.anlp.jp/proceedings/annual_meeting/2021/pdf_dir/B3-3.pdf)
- **Niwa, A.**, Nishiguchi, K., & Okazaki, N. (2020). Slogan generation with antitheses structure with masked language models. In *The 15th young researcher association for nlp studies symposium 2020 (yans2020)*, Online.
- **Niwa, A.**, Wakimoto, K., Nishiguchi, K., Mouri, M., & Okazaki, N. (2020a). Analysis of antitheses structure in advertisement slogan. In *26th annual meeting of the association of natural language processing (nlp 2020)* (pp. 601–604). Ibaraki, Japan. Retrieved from [https://www.anlp.jp/proceedings/annual\\_meeting/2020/pdf\\_dir/D3-4.pdf](https://www.anlp.jp/proceedings/annual_meeting/2020/pdf_dir/D3-4.pdf)
- **Niwa, A.**, Wakimoto, K., Nishiguchi, K., Mouri, M., & Okazaki, N. (2020b). Antithesis structure analysis in slogan using span candidate refinement with word correspondence. In *The 34th annual conference of the japanese society for artificial intelligence, 2020 (jsai2020)*. doi:10.11517/pjsai.JSAI2020.0\_1E5GS901
- Nobori, N., Hiraoka, T., **Niwa, A.**, Okazaki, N., Wakimoto, K., Kuroda, K., & Nishiguchi, K. (2020). Advertisement slogan generation considering company information. In *The 15th young researcher association for nlp studies symposium 2020 (yans2020)*, Online.
- **Niwa, A.**, Okazaki, N., Nishiguchi, K., Kameyama, C., & Mouri, M. (2019a). A study toward automatic advertisement slogan generation considering rhetorical devices. In *The 14th young researcher association for nlp studies symposium 2019 (yans2019)* (p. 63). Sapporo, Japan.
- **Niwa, A.**, Okazaki, N., Nishiguchi, K., Kameyama, C., & Mouri, M. (2019b). Analysis for advertisement slogan generation. In *25th annual meeting of the association of natural language processing (nlp2019)* (pp. 558–561). Nagoya, Japan. Retrieved from [https://www.anlp.jp/proceedings/annual\\_meeting/2019/pdf\\_dir/P3-12.pdf](https://www.anlp.jp/proceedings/annual_meeting/2019/pdf_dir/P3-12.pdf)

# ORGANIZER

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## NLP Colloquium

📅 June 2021 –

🌐 Website

- An event held mainly every two weeks, inviting people who are working on the latest research and development in Natural Language Processing (NLP) and Computational Linguistics (CL)
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## NLP Study Group for Doctoral Students Organizer

📅 Dec. 2020 –

🌐 Website

- A study group for NLP students at Doctoral courses for the research discussion
- Holding the group four times a year

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## Young Researcher Association for NLP Studies (YANS) Committee

📅 Mar. 2020 – Mar. 2022

🌐 Website

- An association for students and young researchers to promote the progress of their research
- Planning and organizing the symposium held every summer

## INVITED TALKS

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### The 78th AI Seminar: AI Trends and Top Conferences debriefing session (NeurIPS2019) by JSAI

📅 Mar. 2020

📍 Tokyo, Osaka

- Published a slide titled “Trends in Natural Language Processing at NeurIPS 2019.” 🔗 (in Japanese)

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### A visiting lecture entitled “A Smart Computer that Understands Language”

📅 Nov. 2019

📍 Jissen Gakuen Senior High School, Tokyo

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### A visiting lecture entitled “Natural Language Processing”

📅 June 2019

📍 Denenchofu High School, Tokyo

## SCHOLARSHIP, FELLOWSHIP, AND GRANTS-IN-AID

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### Research Fellowship for Young Scientists

**4,800,000 JPY / APPROX 45,000 USD**

📅 Apr. 2021 – Mar. 2023

- The most prestigious fellowship for Ph.D. students in Japan [Acceptance Rate < 20%]

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### Grant-in-Aid for JSPS Fellows: Research Grant

**1,500,000 JPY / APPROX 13,500 USD**

📅 Apr. 2021 – Mar. 2023

- Grant Number: 21J13602 🔗

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### NeurIPS 2019 Participation Support

**Full support of travel expense and registration fees**

📅 Dec. 2019

- Received by the Japanese Society for Artificial Intelligence (JSAI) 🔗

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### Tokyo Tech Tsubame Scholarship for Doctoral Students

**480,000 JPY / APPROX 4,300 USD**

📅 Apr. 2020 – Mar. 2021

- Received by Tokyo Institute of Technology 🔗

## OTHERS

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### Teaching Assistant

- Machine Learning 2020 4Q 🔗

### Qualifications

- Certificate in teaching Mathematics at a high school level

### Skills

Python

C/C++

Html/Javascript

Linux-Bash

Pytorch

Git

Adobe Illustrator