# Noriki Nishida, Ph.D.

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#### Research Areas

I have been working on natural language processing, especially discourse analysis, knowledge acquisition, and their medical and healthcare applications. I am interested in automatically analyzing specialized documents such as scientific papers, extracting useful information from them, and organizing it as a knowledge base, to improve knowledge retrieval and discovery systems.

# **Employment History**

Dec. 2023 – Present Researcher. RIKEN AIP.

Apr. 2022 – Present Part-Time Lecturer. University of Tsukuba.

Jul. 2020 – Jun. 2021 | Visiting Researcher. The University of Tokyo.

Apr. 2020 – Nov. 2023 **Postdoctoral Researcher.** RIKEN AIP.

Apr. 2018 – Mar. 2020 **Young Research Fellow (DC2).** The Japan Society for the

Promotion of Science.

Apr. 2016 – Mar. 2020 **External Collaborator.** The PLU Group in AIRC.

Nov. 2014 – Aug. 2015 **Part-Time Software Engineer.** Logarhythm Inc.

#### Education

Mar. 2020 Ph.D. of Information Science and Technology.

Department of Creative Informatics, Graduate School of Information Science and Technology, The University of Tokyo.

Thesis title: Unsupervised Induction of Natural Language Discourse Structure Based on Rhetorical Structure Theory.

Advisor: Hideki Nakayama.

Mar. 2017 Master's Degree in Information Science and Technology.

Department of Creative Informatics, Graduate School of Information Science and Technology, The University of Tokyo.

Thesis title: Unsupervised Learning of Syntactically Plausible Word Representations by Solving Word Ordering.

Advisor: Hideki Nakayama.

Mar. 2015 | Bachelor's Degree in Engineering.

Department of Information and Communication Engineering, Faculty of Engineering, The University of Tokyo.

Thesis title: Hand Gesture Recognition Using Recurrent Convolutional Neural Networks.

Advisor: Hitoshi Iba and Yoshihiko Hasegawa.

# **Teaching History**

Oct. 2022 – Present **Data Science.** University of Tsukuba.

Apr. 2022 – Present Information Literacy. University of Tsukuba.

# **Teaching History (continued)**

Oct. 2017 – Mar. 2018

**Data Science.** Teaching Assistant, The University of Tokyo.

Oct. 2014 - Mar. 2015

**Basic Programming Exercise.** Teaching Assistant, The University of Tokyo.

#### **Research Publications**

#### **Journal Articles**

- Shibahara, T., Yamada, I., **Nishida**, **N.**, Teranishi, H., Kozaki, K., & Matsumoto, Y. (2024). Weakly supervised NER using thesaurus hierarchical structure. *Journal of Natural Language Processing*, 31(3).
- Nishida, N., & Matsumoto, Y. (2022). Out-of-domain discourse dependency parsing via bootstrapping: An empirical analysis on its effectiveness and limitation. Transactions of the Association for Computational Linguistics, 10, 127–144. Presented at ACL 2022.

  doi:10.1162/tacl\_a\_00451
- Nishida, N., & Nakayama, H. (2020). Unsupervised discourse constituency parsing using Viterbi EM. Transactions of the Association for Computational Linguistics, 8, 215–230. Presented at ACL 2020. Odoi:10.1162/tacl\_a\_00312
- Nakayama, H., & **Nishida**, **N.** (2017). Zero-resource machine translation by multimodal encoder-decoder network with multimedia pivot. *Machine Translation*, 31(1), 49–64. Odi:10.1007/s10590-017-9197-z

#### **Conference Proceedings (refereed)**

- 1 Chen, Y., **Nishida**, **N.**, Nakayama, H., & Matsumoto, Y. (2024). Recent trends in personalized dialogue generation: A review of datasets, methodologies, and evaluations. In *Proceedings of the 2024 joint international conference on computational linguistics, language resources and evaluation (lrec-coling 2024).*
- Takeuchi, J., **Nishida**, **N.**, & Nakayama, H. (2022). Neural networks in a product of hyperbolic spaces. In *Proceedings of the 2022 conference of the north american chapter of the association for computational linguistics: Student research workshop (NAACL-SRW 2022).*
- Nishida, N., & Nakayama, H. (2018). Coherence modeling improves implicit discourse relation recognition. In *Proceedings of the 19th annual meeting of the special interest group on discourse and dialogue (SIGDIAL 2018)*. Odi:10.18653/v1/W18-5040
- Nishida, N., & Nakayama, H. (2017). Word ordering as unsupervised learning towards syntactically plausible word representations. In *Proceedings of the 8th international joint conference on natural language processing (IJCNLP 2017)*. Retrieved from https://www.aclweb.org/anthology/I17-1008

- Laorulrat, N., Phan, S., Nishida, R., Noriki Shu, Ehara, Y., Okazaki, N., Miyao, Y., ... Nakayama, H. (2016). Generating video description using sequence-to-sequence model with temporal attention. In *Proceedings of the 26th international conference on computational linguistics (COLING 2016)*. Retrieved from <code>% https://www.aclweb.org/anthology/C16-1005</code>
- Nishida, N., & Nakayama, H. (2015). Multimodal gesture recognition using multi-stream recurrent neural network. In *Proceedings of the 7th pacific-rim symposium on image and video technology (PSIVT 2015)*. Odoi:10.1007/978-3-319-29451-3\_54

#### **Awards**

Dec. 2020	Outstanding Reviewer. The 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022).
Mar. 2020	Young Researcher Encouragement Award. The Annual Meeting of the Association for Natural Language Processing.
Jul. 2017	<b>Annual Conference Award.</b> The Japan Society of Artificial Intelligence (JSAI).

# **Talks**

June. 2023	Standard Supervision vs. In-Context Learning in NLP. GPT4 Journal Club Series (RIKEN AIP mini workshop).
May. 2022	Machine Learning for Knowledge Acquisition from Scholarly Articles. The 2022 Annual Meeting of the Biometric Society of Japan.
Nov. 2018	Towards Unsupervised Discourse Parsing. The Perception and Language Understanding (PLU) Group in Artificial Intelligence Research Center (AIRC), Japan.
Mar. 2016	<b>Deep Learning in Computer Vision.</b> Kansai Chapter of the Acoustic Society of Japan.
Sep. 2015	<b>Deep Learning in Video Recognition.</b> Prometech Simulation Conference, Japan.

#### **Research Grants**

Jul. 2022 – Mar. 2023	JST AIP Challenge Program.
May. 2022 – Mar. 2025	JSPS KAKENHI Grant-in-Aid for Transformative Research Areas (B) (Co-Investigator).
Apr. 2021 – Mar. 2024	JSPS KAKENHI Grant-in-Aid for Early-Career Scientists.
Apr. 2018 – Mar. 2020	JSPS KAKENHI Research Fellowship for Young Scientists (DC2).

# **Academic Activities**

Program Committee	EMNLP 2023 Publicity Chairs; SCIDOCA 2021,2022,2023
Journal Editor	Journal of Natural Language Processing (Apr. 2023 – Present)
Journal Reviewer	Language Resources and Evaluation; ACM Transactions of Asian and Low-Resource Language Information Processing; Journal of Natural Language Processing

# **Academic Activities (continued)**

Conference Reviewer

ACL Rolling Review; ACL; NAACL; EACL; EMNLP; COLING; AAAI; IJCAI.

# Skills

Languages

Strong reading, writing and speaking competencies for English and Japanese.

Programming

Python, Java, C++, SQL, Linux, LATEX, etc.