NORIKI NISHIDA

RIKEN Center for Advanced Intelligence Project (AIP)

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RESEARCH AREAS

My research is aimed at developing technology to automatically extract useful information from documents, organize the knowledge , and support knowledge retrieval and discoverly. In particular, I am working on knowledge acquisition from biomedical papers and discourse analysis for that objective.

EMPLOYMENT HISTORY

- **Postdoctoral Researcher**, RIKEN AIP, April 2020 - Present.

- **Part-Time Lecturer**, University of Tsukuba, April 2022 - Present.

- **Visiting Researcher**, The University of Tokyo, July 2020 - June 2021.

- **Young Research Fellow (DC2)**, the Japan Society for the Promotion of Science, April 2018 - March 2020.

- **External Collaborator**, the PLU Group in AIRC, April 2016 - March 2020.

- **Part-time Software Engineer**, Logarhythm Inc., November 2014 - August 2015.

EDUCATION

Ph.D. of Information Science and Technology   *March 2020*

Department of Creative Informatics

Graduate School of Information Science and Technology

The University of Tokyo

> *Dissertation title*: "Unsupervised Induction of Natural Language Discourse Structure Based on Rhetorical Structure Theory"

> *Advisor*: Hideki Nakayama

Master's Degree in Information Science and Technology   *March 2017*

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

Bachelor's Degree in Engineering   *March 2015*

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, Yoshihiko Hasegawa

TEACHING HISTORY

- **Data Science**, University of Tsukuba, October 2022 - March 2023.

- **Information Literacy**, University of Tsukuba, April 2022 - September 2022.

- **Data Science**, The University of Tokyo, TA, October 2017 - March 2018.

- **Basic Programming Exercise**, The University of Tokyo, TA, October 2014 - March 2015.

PUBLICATIONS

Journal Articles

- Noriki Nishida and Yuji Matsumoto. 2022.
  Out-of-Domain Discourse Dependency Parsing via Bootstrapping: An Empirical Analysis on Its Effectiveness and Limitation.
  Transactions of the Association for Computational Linguistics, vol.10, pp.127–144. (presented in ACL 2022)

- Noriki Nishida and Hideki Nakayama. 2020.
  Unsupervised Discourse Constituency Parsing Using Viterbi EM.
  Transactions of the Association for Computational Linguistics, vol.8, pp.215–230. (presented in ACL 2020)

- Hideki Nakayama and Noriki Nishida. 2017.
  Zero-Resource Machine Translation by Multimodal Encoder-Decoder Network with Multimedia Pivot.
  Machine Translation, vol.31, no.1, pp.49–64.

International Conferences (refereed)

- Hisashi Kamezawa, Noriki Nishida, Nobuyuki Shimizu, Takashi Miyazaki, Hideki Nakayama. 2022.
  RNSum: A Large-Scale Dataset for Automatic Release Note Generation via Commit Logs Summarization.
  In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL 2022).

- Hisashi Kamezawa, Noriki Nishida, Nobuyuki Shimizu, Takashi Miyazaki, Hideki Nakayama. 2020.
  A Visually-grounded First-person Dialogue Dataset with Verbal and Non-verbal Responses.
  In Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP 2020).

- Noriki Nishida and Hideki Nakayama. 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).

- Noriki Nishida and Hideki Nakayama. 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).

- Natsuda Laokulrat, Sang Phan, <u>Noriki Nishida</u>, Raphael Shu, Yo Ehara, Naoaki Okazaki, Yusuke Miyao, Shin'ichi Satoh, Hideki Nakayama. 2016.
  Generating Video Description Using Sequence-to-Sequence Model with Temporal Attention.
  In Proceedings of the 26th International Conference on Computational Linguistics (COLING 2016).

- <u>Noriki Nishida</u> and Hideki Nakayama. 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).

International Workshops

- Jun Takeuchi, <u>Noriki Nishida</u>, and Hideki Nakayama. 2022.
  Neural Networks in a Product of Hyperbolic Spaces.
  Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Student Research Workshop (NAACL-SRW 2022).

- <u>Noriki Nishida</u> and Yuji Matsumoto. 2022.
  GENIA-DTB: A Discourse Dependency Treebank for Biomedical Paper Abstracts.
  In Fifth International Workshop on SCIentific DOCument Analysis (SCIDOCA 2022).

- <u>Noriki Nishida</u> and Yuji Matsumoto. 2020.
  An Empirical Study of Proxy-labeling for Adaptation of Discourse Dependency Parsing.
  In Fourth International Workshop on SCIentific DOCument Analysis (SCIDOCA 2020).

- Shibahara Takayoshi, Ikuya Yamada, <u>Noriki Nishida</u>, Shanshan Liu, Kouji Kozaki, Taro Watanabe, Yuji Matsumoto. 2020.
  Preliminary Experiments of Span-based Distant Supervision for Biomedical NER.
  In Fourth International Workshop on SCIentific DOCument Analysis (SCIDOCA 2020).

AWARDS

- **Outstanding Reviewer**, the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP), December 2020.

- **Young Researcher Encouragement Award**, the Annual Meeting of the Association for Natural Language Processing (NLP), March 2020.

- **Annual Conference Award**, the Japanese Society of Artificial Intelligence (JSAI), July 2017.

TALKS

- **Machine Learning for Knowledge Acquisition from Scholarly Articles.**
  The 2022 Annual Meeting of the Biometric Society of Japan, May 2022.

- **Towards Unsupervised Discourse Parsing.**
  The Perception and Language Understanding (PLU) Group in Artificial Intelligence
  Research Center (AIRC), Japan, November 2018.

- **Deep Learning for Computer Vision.**

Kansai Chapter of the Acoustic Society of Japan, March 2016.

- **Deep Learning for Video Recognition.**
  Prometech Simulation Conference, Japan, September 2015.

RESEARCH GRANTS

- **JST AIP Challenge Program**, July 2022 - March 2023.

- **JSPS KAKENHI Grant-in-Aid for Transformative Research Areas (B) (Co-Investigator)**, May 2022 - March 2025.

- **JSPS KAKENHI Grant-in-Aid for Early-Career Scientists**, April 2021 - March 2024.

- **JSPS KAKENHI Research Fellowship for Young Scientists (DC2)**, April 2018 - March 2020.

ACADEMIC ACTIVITIES

- Journal Reviewer

  - Language Resources and Evaluation: 2021

  - Transaction of ANLP: 2020-

- Conference Reviewer

  - ACL Rolling Review: 2021-

  - ACL: 2020-

  - EMNLP: 2020-

  - NAACL: 2021-

  - EACL: 2021-

  - AAAI: 2019

  - IJCAI: 2018, 2020

  - ANLP (domestic conference): 2021-

  - MIRU (domestic conference): 2020-

SKILLS

Natural Language Processing	Document/sentence structure analysis, text mining
Machine Learning	Unsupervised learning, deep learning, multimodal processing
Computer Vision	Video (gesture) recognition, OpenCV
Programming	Python, Java, C, C++, SQL, Linux