

NORIKI NISHIDA

RIKEN Center for Advanced Intelligence Project (AIP)

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RESEARCH INTERESTS

I work in the area of computational linguistics and natural language processing. I am interested in uncovering linguistic/informational structures and rules from linguistic phenomena in a data-driven manner. In particular, I am working on problems related to automated text parsing. I am also interested in knowledge acquisition from text.

PROFESSIONAL EMPLOYMENT

Post-doctoral Researcher, RIKEN Center for Advanced Intelligence Project (AIP), April 2020 - Present.

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

PROFESSIONAL EXPERIENCES

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

- **Teaching Assistant** in Data Science, the University of Tokyo, October 2017 - March 2018.
- **Teaching Assistant** in Basic Programming Exercise, the University of Tokyo, October 2014 - March 2015.

PUBLICATIONS

Under Review

- A work on unsupervised discourse nuclearity identification.

Journal Articles

- **Unsupervised Discourse Constituency Parsing Using Viterbi EM.**
Noriki Nishida and Hideki Nakayama.
 Transactions of the Association for Computational Linguistics, to appear.
- **Zero-Resource Machine Translation by Multimodal Encoder-Decoder Network with Multimedia Pivot.**
 Hideki Nakayama and Noriki Nishida.
 Machine Translation, vol.31, no.1, pp.49–64, 2017.

Refereed Conference Proceedings

- **Coherence Modeling Improves Implicit Discourse Relation Recognition.**
Noriki Nishida and Hideki Nakayama.
 In Proceedings of the 19th Annual Meeting of the Special Interest Group on Discourse and Dialogue, 2018.
- **Word Ordering as Unsupervised Learning Towards Syntactically Plausible Word Representations.**
Noriki Nishida and Hideki Nakayama.
 In Proceedings of the 8th International Joint Conference on Natural Language Processing, 2017.
- **Generating Video Description Using Sequence-to-Sequence Model with Temporal Attention.**
 Natsuda Laokulrat, Sang Phan, Noriki Nishida, Raphael Shu, Yo Ehara, Naoaki Okazaki, Yusuke Miyao, Shin'ichi Satoh, and Hideki Nakayama.
 In Proceedings of the 26th International Conference on Computational Linguistics, 2016.
- **Multimodal Gesture Recognition Using Multi-Stream Recurrent Neural Network.**
Noriki Nishida and Hideki Nakayama.
 In Proceedings of the 7th Pacific-Rim Symposium on Image and Video Technology, 2015.

Non-refereed Domestic Conferences

- **Exploiting Discourse Irreducibility for Unsupervised Nuclearity Classification.**
Noriki Nishida and Hideki Nakayama.
 In Proceedings of the 26th Annual Meeting of the Association for Natural Language Processing, 2020.
 Young Researcher Encouragement Award.
- **Unsupervised Paraphrase Generation by Reordering Noun Phrases.**
 Shota Sugiura, Noriki Nishida, and Hideki Nakayama.

In Proceedings of the 26th Annual Meeting of the Association for Natural Language Processing, 2020.

- **RST Discourse Structure Improves Story Ending Generation.**

Hong Chen, Noriki Nishida, Raphael Shu, Naoaki Okazaki, and Hideki Nakayama.

In Proceedings of the 26th Annual Meeting of the Association for Natural Language Processing, 2020.

- **Discourse Constituent-Context Model for Unsupervised Discourse Constituency Parsing.**

Noriki Nishida and Hideki Nakayama.

In Proceedings of the 25th Annual Meeting of the Association for Natural Language Processing, 2019.

- **Vision Mediated Story Generation.**

Hong Chen, Raphael Shu, Noriki Nishida, and Hideki Nakayama.

In Proceedings of the 25th Annual Meeting of the Association for Natural Language Processing, 2019.

- **Semi-Supervised Implicit Discourse Relation Recognition Using Coherence Modeling.**

Noriki Nishida and Hideki Nakayama.

In Proceedings of the 24th Annual Meeting of the Association for Natural Language Processing, 2018.

- **Automatic Coding Style Evaluation Using Recurrent Neural Networks.**

Yuki Kobayashi, Noriki Nishida, and Shigeru Chiba.

In Proceedings of the 34th Japan Society for Software Science and Technology (JSSST) Annual Conference, 2017.

Student Incentive Award.

- **Learning Syntactically Plausible Word Representations by Solving Word Ordering.**

Noriki Nishida and Hideki Nakayama.

In Proceedings of the 31st Annual Conference of the Japan Society for Artificial Intelligence, 2017.
Annual Conference Award.

TALKS

- **Towards Unsupervised Discourse Parsing.**

At the Perception and Language Understanding (PLU) Group in Artificial Intelligence Research Center (AIRC), Japan, November 2018.

- **Deep Learning for Computer Vision.**

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

- **Deep Learning for Video Recognition.**

At Prometech Simulation Conference, Japan, September 2015.

GRANTS

- **Young Research Fellowship (DC2)** from the Japan Society for the Promotion of Science with research fund of approximately 75,000 USD/year, April 2018 - March 2020.

AWARDS

- **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.

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