

TOMOYUKI KAJIWARA

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Graduate School of Science and Engineering, Ehime University

#607, 4th Bldg. of Engineering, Ehime University, 3 Bunkyo-cho, Matsuyama, Ehime 790-8577, Japan

RESEARCH INTERESTS

Natural Language Processing (Paraphrasing, Text Simplification, Quality Estimation)

POSITION

Assistant Professor

January 2021 - present

Artificial Intelligence Lab., Graduate School of Science and Engineering, Ehime University

Specially-Appointed Assistant Professor

April 2018 - December 2020

Intelligence and Sensing Lab., Institute for Datability Science, Osaka University

EDUCATION

Ph.D. in Engineering

April 2015 - March 2018

Dept. of System Design, Tokyo Metropolitan University

Text Simplification without Simplified Corpora (Supervisor: Mamoru Komachi)

Ph.D. Thesis Recommended by IPSJ SIGs

B.S. and M.S. in Engineering

April 2011 - March 2015

Dept. of Electrical, Electronics and Information Engineering, Nagaoka University of Technology

Lexical Simplification for Reading Assistance (Supervisor: Kazuhide Yamamoto)

Department Chair's Award

EXPERIENCE

Visiting Researcher

NICT (Mentor: Atsushi Fujita)

May 2017 - August 2017

University of Liverpool (Mentor: Danushka Bollegala)

September 2015 - December 2015

Internship

BrainPad, Inc.

January 2014 - February 2014

Fujitsu Laboratories, Ltd.

October 2012 - February 2013

Editorial Committee

Journal of Natural Language Processing

March 2020 - March 2024

Program Committee

Chair: YANS (2022-2023)

Local Arrangement Chair: SNL (2020)

Program Committee: NLP (2022-2023), JSAI (2019-2020), IPSJ-SIGNL (2022-), YANS (2015-2016)

Reviewer

EMNLP-2022, COLING-2022, ACL-2022, LREC-2022, ACLSRW-2022, TSAR-2022, AACL-2021, ACL-2021, EMNLP-2021, NAACL-2021, EACL-2021, ACLSRW-2021, NAACL-2021, NAACL-2020, IJCAI-2020, ACL-2020, EMNLP-2020, COLING-2020, AACL-2020, ACLSRW-2020, BEA-2020, AACL-2020, ACL-2019, EMNLP-2019, NAACL-2019, PACLIC-2019, NLPTEA-2018, IJCNLP-2017, NLPTEA-2017

GRANTS

- JSPS, Grant-in-Aid for Young Scientists (20K19861)** *April 2020 - March 2024*
Semi-supervised Machine Translation based on Quality Estimation
Principal Investigator: 3,100,000 JPY
- JST, ACT-X (JPMJAX1907)** *October 2019 - March 2022*
Paraphrase Generation for Improving the Performance of Various NLP Applications
Principal Investigator: 4,500,000 JPY
- JST, ACT-I (JPMJPR18UB)** *October 2018 - March 2020*
Personalized Text Generation with Lexical Constraint
Principal Investigator: 4,000,000 JPY
- JSPS, Grant-in-Aid for Research Activity Start-up (18H06465)** *August 2018 - March 2020*
Machine Translation based on Multimodal Quality Estimation
Principal Investigator: 2,100,000 JPY
- JSPS, Grant-in-Aid for Scientific Research (B) (22H03651)** *April 2022 - March 2025*
Construction of an Evaluation Dataset and Quality Estimation for Neural Language Generation
Co-Investigator: 13,400,000 JPY (PI: Mamoru Komachi)
- JSPS, Grant-in-Aid for Scientific Research (B) (21H03564)** *April 2021 - March 2025*
語彙学習のための大規模 Data-Driven Learning システム開発
Co-Investigator: 13,100,000 JPY (PI: Yuki Arase)
- JSPS, Grant-in-Aid for Scientific Research (B) (20H04484)** *April 2020 - March 2024*
Scholar2Vec: 研究者の多様な活動情報を埋め込める深層潜在空間の構築
Co-Investigator: 13,900,000 JPY (PI: Marie Katsurai)
- JSPS, Grant-in-Aid for Scientific Research (B) (19H01330)** *April 2019 - March 2023*
Historical Anatomy of Public Opinion Making in Australia: Public Meeting Data Analysis via NLP
Co-Investigator: 13,300,000 JPY (PI: Takao Fujikawa)

PUBLICATIONS

Selected Publications (AAAI, ACL, EMNLP, NAACL, COLING, AACL)

- Yuki Arase, Satoru Uchida and Tomoyuki Kajiwara. **CEFR-Based Sentence-Difficulty Annotation and Assessment**. EMNLP 2022. (to appear)
- Daiki Yanamoto, Tomoki Ikawa, Tomoyuki Kajiwara, Takashi Ninomiya, Satoru Uchida and Yuki Arase. **Controllable Text Simplification with Deep Reinforcement Learning**. AACL-IJCNLP 2022. (to appear)
- Yuto Kuroda, Tomoyuki Kajiwara, Yuki Arase and Takashi Ninomiya. **Adversarial Training on Disentangling Meaning and Language Representations for Unsupervised Quality Estimation**. COLING 2022. (Acceptance Rate: 24%)
- Han Huang, Tomoyuki Kajiwara and Yuki Arase. **Definition Modelling for Appropriate Specificity**. EMNLP 2021. (Acceptance Rate: 26%)
- Nattapong Tiyajamorn, Tomoyuki Kajiwara, Yuki Arase and Makoto Onizuka. **Language-agnostic Representation from Multilingual Sentence Encoders for Cross-lingual Similarity Estimation**. EMNLP 2021. (Acceptance Rate: 26%)
- Sora Ohashi, Junya Takayama, Tomoyuki Kajiwara and Yuki Arase. **Distinct Label Representations for Few-Shot Text Classification**. ACL 2021. (Acceptance Rate: 21%)

- Tomoyuki Kajiwara, Chenhui Chu, Noriko Takemura, Yuta Nakashima and Hajime Nagahara. **WRIME: A New Dataset for Emotional Intensity Estimation with Subjective and Objective Annotations**. NAACL 2021. (Acceptance Rate: 26%)
- Sora Ohashi, Mao Isogawa, Tomoyuki Kajiwara and Yuki Arase. **Tiny Word Embeddings Using Globally Informed Reconstruction**. COLING 2020. (Acceptance Rate: 26%)
- Ryoma Yoshimura, Masahiro Kaneko, Tomoyuki Kajiwara and Mamoru Komachi. **SOME: Reference-less Sub-Metrics Optimized for Manual Evaluations of Grammatical Error Correction**. COLING 2020. (Acceptance Rate: 26%)
- Sora Ohashi, Junya Takayama, Tomoyuki Kajiwara, Chenhui Chu and Yuki Arase. **Text Classification with Negative Supervision**. ACL 2020. (Acceptance Rate: 18%)
- Tomoyuki Kajiwara, Biwa Miura and Yuki Arase. **Monolingual Transfer Learning via Bilingual Translators for Style-Sensitive Paraphrase Generation**. AAAI 2020. (Acceptance Rate: 21%)
- Tomoyuki Kajiwara. **Negative Lexically Constrained Decoding for Paraphrase Generation**. ACL 2019. (Acceptance Rate: 18%)
- Tomoyuki Kajiwara and Mamoru Komachi. **Building a Monolingual Parallel Corpus for Text Simplification Using Sentence Similarity Based on Alignment between Word Embeddings**. COLING 2016. (Acceptance Rate: 32%)

Journal Papers

1. Koji Tanaka, Chenhui Chu, Tomoyuki Kajiwara, Yuta Nakashima, Noriko Takemura, Hajime Nagahara and Takao Fujikawa. **Corpus Construction for Historical Newspapers: A Case Study on Public Meeting Corpus Construction using OCR Error Correction**. SN Computer Science, Vol.3, No.489, pp.1–17, 2022.
2. Kazuki Akiyama, Akihiro Tamura, Takashi Ninomiya and Tomoyuki Kajiwara. **Hie-BART: Abstractive Summarization by Hierarchical BART**. Journal of Natural Language Processing, Vol.29, No.3, pp.835–853, 2022. (In Japanese)
3. Yuujin Shimizu, Chihiro Tanikawa, Tomoyuki Kajiwara, Hajime Nagahara, Takashi Yamashiro. **The Validation of Orthodontic Artificial Intelligence Systems That Perform Orthodontic Diagnoses and Treatment Planning**. European Journal of Orthodontics, Vol.44, No.4, pp.436–444, 2022.
4. Tetsuro Nishihara, Yuji Iwamoto, Masato Yoshinaka, Tomoyuki Kajiwara, Yuki Arase and Takashi Ninomiya. **Unsupervised Quality Estimation via Multilingual Denoising Autoencoder**. Journal of Natural Language Processing, Vol.29, No.2, pp.669–687, 2022. (In Japanese)
5. Junya Takayama, Tomoyuki Kajiwara and Yuki Arase. **Construction and Analysis of a Dialogue Corpus with Paraphrase Pairs of Indirect and Direct Responses**. Journal of Natural Language Processing, Vol.29, No.1, pp.84–111, 2022. (In Japanese)
6. Yuting Zhao, Mamoru Komachi, Tomoyuki Kajiwara, Chenhui Chu. **Region-Attentive Multimodal Neural Machine Translation**. Neurocomputing, Vol.476, pp.1–13, 2022.
7. Yuting Zhao, Mamoru Komachi, Tomoyuki Kajiwara, Chenhui Chu. **Word-Region Alignment-Guided Multimodal Neural Machine Translation**. IEEE/ACM Transactions on Audio, Speech and Language Processing, Vol.30, pp.244–259, 2021.
8. Masato Yoshinaka, Tomoyuki Kajiwara and Yuki Arase. **Monolingual Phrase Alignment Based on Word Embedding**. Journal of Natural Language Processing, Vol.28, No.2, pp.508–531, 2021. (In Japanese)

9. Ryoma Yoshimura, Masahiro Kaneko, Tomoyuki Kajiwara and Mamoru Komachi. **Optimization of Reference-less Evaluation Metric of Grammatical Error Correction for Manual Evaluations.** Journal of Natural Language Processing, Vol.28, No.2, pp.404–427, 2021. (In Japanese)
10. Sora Ohashi, Mao Isogawa, Tomoyuki Kajiwara and Yuki Arase. **Compact Word Embeddings Based on Global Similarity.** Journal of Natural Language Processing, Vol.28, No.1, pp.235–252, 2021. (In Japanese)
11. Tomoyuki Kajiwara, Daiki Nishihara, Tomonori Kodaira and Mamoru Komachi. **Language Resources for Japanese Lexical Simplification.** Journal of Natural Language Processing, Vol.27, No.4, pp.801–824, 2020. (In Japanese)
12. Daiki Nishihara, Tomoyuki Kajiwara and Yuki Arase. **Controllable Text Simplification with Lexical Constraint.** Journal of Natural Language Processing, Vol.27, No.2, pp.189–210, 2020. (In Japanese)
13. Takao Fujikawa, Chenhui Chu, Tomoyuki Kajiwara and Hajime Nagahara. **Use of Big Data in Historical Research: Cases of Australia.** Seiyoshigaku (The Studies in Western History), No.268, pp.50–61, 2019. (In Japanese)
14. Kazuki Ashihara, Tomoyuki Kajiwara, Yuki Arase and Satoru Uchida. **Contextualized Multi-Sense Word Embedding.** Journal of Natural Language Processing, Vol.26, No.4, pp.689–710, 2019. (In Japanese)
15. Hiroki Shimanaka, Tomoyuki Kajiwara and Mamoru Komachi. **Metric for Automatic Machine Translation Evaluation based on Pre-trained Sentence Embeddings.** Journal of Natural Language Processing, Vol.26, No.3, pp.613–634, 2019. (In Japanese)
16. Tomoyuki Kajiwara and Mamoru Komachi. **Text Simplification without Simplified Corpora.** Journal of Natural Language Processing, Vol.25, No.2, pp.223–249, 2018. (In Japanese) **Best Paper Award**
17. Tomoyuki Kajiwara, Danushka Bollegala, Yuichi Yoshida and Ken-ichi Kawarabayashi. **An Iterative Approach for the Global Estimation of Sentence Similarity.** PLOS ONE, Vol.12, No.9, pp.1–15, 2017.
18. Tomoyuki Kajiwara and Kazuhide Yamamoto. **Japanese Lexical Simplification for Children Using Definition Statements.** Journal of Information Processing Society of Japan, Vol.56, No.3, pp.983–992, 2015. (In Japanese)

Refereed Conference Papers

1. Koki Hatagaki, Tomoyuki Kajiwara and Takashi Ninomiya. **Parallel Corpus Filtering for Japanese Text Simplification.** In Proceedings of the Workshop on Text Simplification, Accessibility, and Readability (TSAR 2022), 2022. (to appear)
2. Tatsuya Zetsu, Tomoyuki Kajiwara and Yuki Arase. **Lexically Constrained Decoding with Edit Operation Prediction for Controllable Text Simplification.** In Proceedings of the Workshop on Text Simplification, Accessibility, and Readability (TSAR 2022), 2022. (to appear)
3. Akio Hayakawa, Tomoyuki Kajiwara, Hiroki Ouchi and Taro Watanabe. **JADES: New Text Simplification Dataset in Japanese Targeted at Non-Native Speakers.** In Proceedings of the Workshop on Text Simplification, Accessibility, and Readability (TSAR 2022), 2022. (to appear)
4. Yuki Arase, Satoru Uchida and Tomoyuki Kajiwara. **CEFR-Based Sentence-Difficulty Annotation and Assessment.** In Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP 2022), 2022. (to appear)

5. Kaori Abe, Sho Yokoi, Tomoyuki Kajiwara and Kentaro Inui. **Why Sentence Similarity Benchmark Is Not Predictive of Application-oriented Task Performance?** In Proceedings of the 3rd Workshop on Evaluation and Comparison of NLP Systems (Eval4NLP 2022), 2022. (to appear)
6. Haruya Suzuki, Sora Tarumoto, Tomoyuki Kajiwara, Takashi Ninomiya, Yuta Nakashima and Hajime Nagahara. **Emotional Intensity Estimation based on Writer’s Personality.** In Proceedings of the ACL-IJCNLP 2022 Student Research Workshop (ACL-IJCNLP 2022 SRW), 2022. (to appear)
7. Daiki Yanamoto, Tomoki Ikawa, Tomoyuki Kajiwara, Takashi Ninomiya, Satoru Uchida and Yuki Arase. **Controllable Text Simplification with Deep Reinforcement Learning.** In Proceedings of the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2022), 2022. (to appear)
8. Hiroki Yamauchi, Tomoyuki Kajiwara, Marie Katsurai, Ikki Ohmukai and Takashi Ninomiya. **A Japanese Masked Language Model for Academic Domain.** In Proceedings of the Third Workshop on Scholarly Document Processing (SDP 2022), pp.152–157, 2022. (Acceptance Rate: ??%)
9. Yuki Nakatani, Tomoyuki Kajiwara and Takashi Ninomiya. **Comparing BERT-based Reward Functions for Deep Reinforcement Learning in Machine Translation.** In Proceedings of the 9th Workshop on Asian Translation (WAT 2022), 2022. (to appear)
10. Yuto Kuroda, Tomoyuki Kajiwara, Yuki Arase and Takashi Ninomiya. **Adversarial Training on Disentangling Meaning and Language Representations for Unsupervised Quality Estimation.** In Proceedings of the 29th International Conference on Computational Linguistics (COLING 2022), pp.5240–5245, 2022. (Acceptance Rate: 24%)
11. Han Huang, Tomoyuki Kajiwara and Yuki Arase. **JADE: Corpus for Japanese Definition Modelling.** In Proceedings of the 13th International Conference on Language Resources and Evaluation (LREC 2022), pp.6884–4888, 2022. (Acceptance Rate: 64%)
12. Kazuki Tani, Ryoya Yuasa, Kazuki Takikawa, Akihiro Tamura, Tomoyuki Kajiwara, Takashi Ninomiya and Tsuneo Kato. **A Benchmark Dataset for Multi-Level Complexity-Controllable Machine Translation.** In Proceedings of the 13th International Conference on Language Resources and Evaluation (LREC 2022), pp.6744–6752, 2022. (Acceptance Rate: 64%)
13. Haruya Suzuki, Yuto Miyauchi, Kazuki Akiyama, Tomoyuki Kajiwara, Takashi Ninomiya, Noriko Takemura, Yuta Nakashima and Hajime Nagahara. **A Japanese Dataset for Subjective and Objective Sentiment Polarity Classification in Micro Blog Domain.** In Proceedings of the 13th International Conference on Language Resources and Evaluation (LREC 2022), pp.7022–7028, 2022. (Acceptance Rate: 64%)
14. Han Huang, Tomoyuki Kajiwara and Yuki Arase. **Definition Modelling for Appropriate Specificity.** In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021), pp.2499–2509, 2021. (Acceptance Rate: 26%)
15. Nattapong TiyaJamorn, Tomoyuki Kajiwara, Yuki Arase and Makoto Onizuka. **Language-agnostic Representation from Multilingual Sentence Encoders for Cross-lingual Similarity Estimation.** In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021), pp.7764–7774, 2021. (Acceptance Rate: 26%)
16. Yuki Arase and Tomoyuki Kajiwara. **Distilling Word Meaning in Context from Pre-trained Language Model.** In Findings of the Association for Computational Linguistics: EMNLP 2021, pp.534–546, 2021. (Acceptance Rate: 37%)

17. Junya Takayama, Tomoyuki Kajiwara and Yuki Arase. **DIRECT: Direct and Indirect Responses in Conversational Text Corpus**. In Findings of the Association for Computational Linguistics: EMNLP 2021, pp.1980–1989, 2021. (Acceptance Rate: 37%)
18. Sora Kadotani, Tomoyuki Kajiwara, Yuki Arase and Makoto Onizuka. **Edit Distance Based Curriculum Learning for Paraphrase Generation**. In Proceedings of the ACL-IJCNLP 2021 Student Research Workshop (ACL-IJCNLP 2021 SRW), pp.229–234, 2021. (Acceptance Rate: 39%)
19. Sora Ohashi, Junya Takayama, Tomoyuki Kajiwara and Yuki Arase. **Distinct Label Representations for Few-Shot Text Classification**. In Proceedings of the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021), pp.831–836, 2021. (Acceptance Rate: 21%)
20. Tomoyuki Kajiwara, Chenhui Chu, Noriko Takemura, Yuta Nakashima and Hajime Nagahara. **WRIME: A New Dataset for Emotional Intensity Estimation with Subjective and Objective Annotations**. In Proceedings of the 2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2021), pp.2095–2104, 2021. (Acceptance Rate: 26%)
21. Akifumi Nakamachi, Tomoyuki Kajiwara and Yuki Arase. **Text Simplification with Reinforcement Learning using Supervised Rewards on Grammaticality, Meaning Preservation, and Simplicity**. In Proceedings of the AACL-IJCNLP 2020 Student Research Workshop (AACL-IJCNLP 2020 SRW), pp.153–159, 2020. (Acceptance Rate: 51%)
22. Sora Ohashi, Mao Isogawa, Tomoyuki Kajiwara and Yuki Arase. **Tiny Word Embeddings Using Globally Informed Reconstruction**. In Proceedings of the 28th International Conference on Computational Linguistics (COLING 2020), pp.1199–1203, 2020. (Acceptance Rate: 26%)
23. Ryoma Yoshimura, Masahiro Kaneko, Tomoyuki Kajiwara and Mamoru Komachi. **SOME: Reference-less Sub-Metrics Optimized for Manual Evaluations of Grammatical Error Correction**. In Proceedings of the 28th International Conference on Computational Linguistics (COLING 2020), pp.6516–6522, 2020. (Acceptance Rate: 26%)
24. Yuting Zhao, Mamoru Komachi, Tomoyuki Kajiwara and Chenhui Chu. **Double Attention-based Multimodal Neural Machine Translation with Semantic Image Regions**. In Proceedings of the 22nd Annual Conference of the European Association for Machine Translation (EAMT 2020), pp.105–114, 2020. (Acceptance Rate: 53%)
25. Sora Ohashi, Junya Takayama, Tomoyuki Kajiwara, Chenhui Chu and Yuki Arase. **Text Classification with Negative Supervision**. In Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL 2020), pp.351–357, 2020. (Acceptance Rate: 18%)
26. Yuki Arase, Tomoyuki Kajiwara and Chenhui Chu. **Annotation of Adverse Drug Reactions in Patients’ Weblogs**. In Proceedings of the 12th International Conference on Language Resources and Evaluation (LREC 2020), pp.6771–6778, 2020. (Acceptance Rate: 60%)
27. Daiki Nishihara and Tomoyuki Kajiwara. **Word Complexity Estimation for Japanese Lexical Simplification**. In Proceedings of the 12th International Conference on Language Resources and Evaluation (LREC 2020), pp.3107–3113, 2020. (Acceptance Rate: 60%)
28. Masato Yoshinaka, Tomoyuki Kajiwara and Yuki Arase. **SAPPHIRE: Simple Aligner for Phrasal Paraphrase with Hierarchical Representation**. In Proceedings of the 12th International Conference on Language Resources and Evaluation (LREC 2020), pp.6863–6869, 2020. (Acceptance Rate: 60%)

29. Tomoyuki Kajiwara, Biwa Miura and Yuki Arase. **Monolingual Transfer Learning via Bilingual Translators for Style-Sensitive Paraphrase Generation**. In Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020), pp.8042–8049, 2020. (Acceptance Rate: 21%)
30. Kazuki Ashihara, Tomoyuki Kajiwara, Yuki Arase and Satoru Uchida. **Contextualized *context2vec***. In Proceedings of the 5th Workshop on Noisy User-generated Text (W-NUT 2019), pp.397–406, 2019. (Acceptance Rate: 65%)
31. Daiki Nishihara, Tomoyuki Kajiwara and Yuki Arase. **Controllable Text Simplification with Lexical Constraint Loss**. In Proceedings of the ACL 2019 Student Research Workshop (ACL 2019 SRW), pp.260–266, 2019. (Acceptance Rate: 36%)
32. Tomoyuki Kajiwara. **Negative Lexically Constrained Decoding for Paraphrase Generation**. In Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL 2019), pp.6047–6052, 2019. (Acceptance Rate: 18%)
33. Kazuki Ashihara, Tomoyuki Kajiwara, Yuki Arase and Satoru Uchida. **Contextualized Word Representations for Multi-Sense Embedding**. In Proceedings of the 32nd Pacific Asia Conference on Language, Information and Computation (PACLIC 32), pp.28–36, 2018. (Acceptance Rate: 55%)
34. Hiroki Shimanaka, Tomoyuki Kajiwara and Mamoru Komachi. **Metric for Automatic Machine Translation Evaluation based on Universal Sentence Representations**. In Proceedings of the NAACL 2018 Student Research Workshop (NAACL 2018 SRW), pp.106–111, 2018. (Acceptance Rate: 39%)
35. Tomoyuki Kajiwara, Mamoru Komachi and Daichi Mochihashi. **MIPA: Mutual Information Based Paraphrase Acquisition via Bilingual Pivoting**. In Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP 2017), pp.80–89, 2017. (Acceptance Rate: 31%)
36. Tomoyuki Kajiwara and Atsushi Fujita. **Semantic Features Based on Word Alignments for Estimating Quality of Text Simplification**. In Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP 2017), pp.109–115, 2017. (Acceptance Rate: 31%)
37. Yuuki Sekizawa, Tomoyuki Kajiwara and Mamoru Komachi. **Improving Japanese-English Neural Machine Translation by Paraphrasing the Target Language**. In Proceedings of the 4th Workshop on Asian Translation (WAT 2017), pp.64–69, 2017. (Acceptance Rate: ??%)
38. Yui Suzuki, Tomoyuki Kajiwara and Mamoru Komachi. **Building a Non-Trivial Paraphrase Corpus using Multiple Machine Translation Systems**. In Proceedings of the ACL 2017 Student Research Workshop (ACL 2017 SRW), pp.36–42, 2017. (Acceptance Rate: 40%)
39. Tomoyuki Kajiwara and Mamoru Komachi. **Building a Monolingual Parallel Corpus for Text Simplification Using Sentence Similarity Based on Alignment between Word Embeddings**. In Proceedings of the 26th International Conference on Computational Linguistics (COLING 2016), pp.1147–1158, 2016. (Acceptance Rate: 32%)
40. Tomonori Kodaira, Tomoyuki Kajiwara and Mamoru Komachi. **Controlled and Balanced Dataset for Japanese Lexical Simplification**. In Proceedings of the ACL 2016 Student Research Workshop (ACL 2016 SRW), pp.1–7, 2016. (Acceptance Rate: 36%)
41. Tomoyuki Kajiwara and Kazuhide Yamamoto. **Evaluation Dataset and System for Japanese Lexical Simplification**. In Proceedings of the ACL-IJCNLP 2015 Student Research Workshop (ACL 2015 SRW), pp.35–40, 2015. (Acceptance Rate: 31%)

42. Tomoyuki Kajiwara and Kazuhide Yamamoto. **Noun Paraphrasing Based on a Variety of Contexts.** In Proceedings of the 28th Pacific Asia Conference on Language, Information and Computation (PACLIC 28), pp.644–649, 2014. (Acceptance Rate: 46%)
43. Tomoyuki Kajiwara, Hiroshi Matsumoto and Kazuhide Yamamoto. **Selecting Proper Lexical Paraphrase for Children.** In Proceedings of the 25th Conference on Computational Linguistics and Speech Processing (ROCLING 2013), pp.769–772, 2013. (Acceptance Rate: 71%)

System Description Papers

1. Yuting Zhao, Mamoru Komachi, Tomoyuki Kajiwara and Chenhui Chu. **TMEKU System for the WAT2021 Multimodal Translation Task.** In Proceedings of the 8th Workshop on Asian Translation (WAT 2021), pp.174–180, 2021.
We ranked 1st at Multimodal Translation Shared Task.
2. Akifumi Nakamachi, Hiroki Shimanaka, Tomoyuki Kajiwara and Mamoru Komachi. **TMUOU Submission for WMT20 Quality Estimation Shared Task.** In Proceedings of the Fifth Conference on Machine Translation (WMT 20), pp.1037–1041, 2020.
We ranked 4th in Pearson and 2nd in MAE/RMSE at QE Shared Task.
3. Sora Ohashi, Tomoyuki Kajiwara, Chenhui Chu, Noriko Takemura, Yuta Nakashima and Hajime Nagahara. **IDSOU at WNUT-2020 Task 2: Identification of Informative COVID-19 English Tweets.** In Proceedings of the 6th Workshop on Noisy User-generated Text (W-NUT 2020), pp.428–433, 2020.
We ranked 16th out of 55 at Shared Task on Identification of Informative COVID-19 English Tweets.
4. Hiroki Shimanaka, Tomoyuki Kajiwara and Mamoru Komachi. **RUSE: Regressor Using Sentence Embeddings for Automatic Machine Translation Evaluation.** In Proceedings of the Third Conference on Machine Translation (WMT 18), pp.751–758, 2018.
We ranked 1st in all 7 language pairs of to-English at Metrics Shared Task.
5. Tomoyuki Kajiwara and Mamoru Komachi. **Complex Word Identification Based on Frequency in a Learner Corpus.** In Proceedings of the 13th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 13), pp.195–199, 2018.
We ranked 1st in 5 out of 12 tracks at Complex Word Identification Shared Task.
6. Masahiro Kaneko, Tomoyuki Kajiwara and Mamoru Komachi. **TMU System for SLAM-2018.** In Proceedings of the 13th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 13), pp.365–369, 2018.
We ranked 4th out of 15 at Shared Task on Second Language Acquisition Modeling.

ArXiv Papers

1. Hiroki Shimanaka, Tomoyuki Kajiwara and Mamoru Komachi. **Machine Translation Evaluation with BERT Regressor.** arXiv:1907.12679, 2019.
2. Tomoyuki Kajiwara, Chihiro Tanikawa, Yuujin Shimizu, Chenhui Chu, Takashi Yamashiro and Hajime Nagahara. **Using Natural Language Processing to Develop an Automated Orthodontic Diagnostic System.** arXiv:1905.13601, 2019.

Domestic Conference Papers

- 42 oral presentations
- 45 poster presentations

Best Paper Award

2019: Journal of Natural Language Processing Vol.25 (Kajiwara and Komachi)

Best Paper Award for Young Researcher

2021: The 83rd National Convention of IPSJ (Nishihara, Kajiwara, Tanikawa, Shimizu and Nagahara)

Outstanding Research Award

2016: The 229th IPSJ Natural Language Processing Meeting (Kajiwara and Komachi)

Young Researcher Award

2022: The 28th Annual Meeting of ANLP (Kuroda, Kajiwara, Arase and Ninomiya)

2022: The 28th Annual Meeting of ANLP (Miyuchi, Suzuki, Akiyama, Kajiwara, Ninomiya, ...)

2021: The 249th IPSJ Natural Language Processing Meeting (Takayama, Kajiwara and Arase)

2020: The 26th Annual Meeting of ANLP (Shimanaka, Kajiwara and Komachi)

2020: The 26th Annual Meeting of ANLP (Yamauchi, Kajiwara and Arase)

2019: The 241st IPSJ Natural Language Processing Meeting (Kajiwara, Miura and Arase)

Encouragement Award

2022: The 21st Forum on Information Technology (Hatagaki, Kajiwara and Ninomiya)

2018: The 13th NLP Symposium for Young Researchers (Miura, Kajiwara and Arase)

2012: The 7th NLP Symposium for Young Researchers (Kajiwara and Yamamoto)

Student Encouragement Award

2022: The 84th National Convention of IPSJ (Honda, Masaki and Kajiwara)

2021: The 83rd National Convention of IPSJ (Nishihara, Kajiwara, Tanikawa, Shimizu and Nagahara)

2017: The 231st IPSJ Natural Language Processing Meeting (Kajiwara, Komachi and Mochihashi)

2015: The 77th National Convention of IPSJ (Kajiwara and Yamamoto)

Sponsor Award

2021: The 27th Annual Meeting of ANLP (Nishihara, Kajiwara, Arase and Fujita)

2019: The 14th NLP Symposium for Young Researchers (Ashihara, Kajiwara, Arase and Uchida)

2019: The 14th NLP Symposium for Young Researchers (Yamauchi, Kajiwara and Arase)

Hackathon Award

2018: The 13th NLP Symposium for Young Researchers (Matsuno, Noji, Inoue and Kajiwara)

2015: The 10th NLP Symposium for Young Researchers (Satou and Kajiwara)

Ph.D. Thesis Recommended by IPSJ SIGs

2018: Information Processing Society of Japan

Department Chair's Award

2015: Nagaoka University of Technology