SHONOSUKE ISHIWATARI, Ph.D.

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The University of Tokyo,
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PROFILE

Shonosuke Ishiwatari is currently working for Mantra, a startup company that develops machine translation engine for comics. Prior to Mantra, he earned his Ph.D. in the area of natural language processing from the University of Tokyo where he also worked as a post-doc researcher. His research interests are in natural language processing, especially semantic representations and machine translation.

EDUCATION

Ph.D., Information Science and Technology (Apr. 2016 - Mar. 2019)
Dept. of Information and Communication Engineering, The University of Tokyo.
Supervisors: Masaru Kitsuregawa, Masashi Toyoda, and Naoki Yoshinaga
Thesis: *Translation and Description Methods for Multilingual Text Understanding*

M.S., Information Science and Technology (Apr. 2014 - Mar. 2016)
Dept. of Information and Communication Engineering, The University of Tokyo.
Supervisors: Masaru Kitsuregawa, Masashi Toyoda, and Naoki Yoshinaga
Thesis: *Translation of Word Semantic Representations and its Application to Statistical Machine Translation* **[Department Chair's Award]**

B.E. (Apr. 2010 - Mar. 2014)
Dept. of Information and Communication Engineering, The University of Tokyo.
Supervisors: Hitoshi Iba and Danushka Bollegala
Thesis: *A Reasearch on Semantic Composition of Compound Words*

EXPERIENCE

Co-founder & CEO
Mantra Inc.   Jan. 2020 -

Specially Appointed Researcher
IIS, The University of Tokyo   Apr. 2019 - Mar. 2020

Research Fellow, DC2
Japan Society for the Promotion of Science   Apr. 2017 - Mar. 2019

Visiting Student
Carnegie Mellon University   Sep. 2017 - Feb. 2018

Research Intern
Microsoft Research Asia   Aug. 2016 - Jan. 2017

Research Assistant

The University of Tokyo   Apr. 2016 - Mar. 2017

Teaching Assistant, *"Software I"*
The University of Tokyo   Sep. 2015 - Nov. 2015

R&D Intern
Sony Computer Entertainment Inc.   Sep. 2014

Teaching Assistant, *"Creating a robot with a speech interface"*
The University of Tokyo   Oct. 2013 - Jan. 2014

Software Engineer Intern
Sunity Co.,Ltd., Tokyo   Oct. 2012 - Dec. 2013

SKILLS
Languages: Japanese (native), Chinese (almost native), English (fluent)
Programming: Python, C++, C

PUBLICATIONS

Journal
[1] Shonosuke Ishiwatari, Nobuhiro Kaji, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa, Translation of Word Vectors by Exploiting Translatable Context Pairs. *Transactions of the Japanese Society for Artificial Intelligence*. vol. 31, num. 6, 2016. (In Japanese) **[JSAI 30th Anniversary Best Paper Award]**

International Conference
[1] Ryota Hinami*, Shonosuke Ishiwatari*, Kazuhiko Yasuda, and Yusuke Matsui. Towards Fully Automated Manga Translation. *The Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI)*, Online, 2021. (* Equal contribution)

[2] Shonosuke Ishiwatari, Hiroaki Hayashi, Naoki Yoshinaga, Graham Neubig, Shoetsu Sato, Masashi Toyoda, and Masaru Kitsuregawa. Learning to Describe Unknown Phrases with Local and Global Contexts. *The 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)*, Minneapolis, USA, 2019.

[3] Shonosuke Ishiwatari, Jingtao Yao, Shujie Liu, Mu Li, Ming Zhou, Naoki Yoshinaga, Masaru Kitsuregawa, and Weijia Jia. Chunk-based Decoder for Neural Machine Translation. *The 55th Annual Meeting of the Association for Computational Linguistics (ACL)*, Vancouver, Canada, 2017.

[4] Shonosuke Ishiwatari, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Instant Translation-Model Adaptation by Projecting Word Semantic

Representations. *The 17th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing)*, Konya, Turkey, 2016. **[Best Poster Award]**

[5] Shonosuke Ishiwatari, Nobuhiro Kaji, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Accurate Cross-lingual Projection between Count-based Word Vectors by Exploiting Translatable Context Pairs. *The 19th Conference on Computational Natural Language Learning (CoNLL)*, Beijing, China, 2015.

[6] Shoetsu Sato, Shonosuke Ishiwatari, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. UT Dialogue System at NTCIR-12 STC. *The 12th NTCIR Conference*, Tokyo, Japan, 2016. **[3rd place out of 7 teams]**

Workshop / Poster / Domestic Conference

[1] Shonosuke Ishiwatari, Hiroaki Hayashi, Graham Neubig, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Definition Generation from Word Vectors using Sequence Editing Models. *The 24th Annual Meeting of the Association for Natural Language Processing*, Okayama, 2018. (In Japanese)

[2] Masato Neishi*, Jin Sakuma*, Satoshi Tohda*, Shonosuke Ishiwatari, Naoki Yoshinaga, and Masashi Toyoda (*Equall contribution). A Bag of Useful Tricks for Practical Neural Machine Translation: Embedding Layer Initialization and Large Batch Size. *The 4th Workshop on Asian Translation (WAT), Taipei, Taiwan, 2017*.

[3] Shonosuke Ishiwatari. Neural Machine Translation for Distant Language Pairs. *IIS PhD Student Live (IPSL) 2017*, Tokyo, 2017. **[Best Presentation Award]**

[4] Shonosuke Ishiwatari, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Domain Adaptation for Statistical Machine Translation Based on Cross-lingual Projection between Count-based Word Vectors. *The 22nd Annual Meeting of the Association for Natural Language Processing*, Miyagi, 2016. (In Japanese)

[5] Shonosuke Ishiwatari, Nobuhiro Kaji, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Translation between Word Vectors by using Translatable Context Pairs. *The 10th NLP Symposium for Young Researchers*, Ishikawa, 2015. (In Japanese) **[Incentive Award]**

[6] Shonosuke Ishiwatari, Nobuhiro Kaji, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Translating Vector Representations for Words using Language Resources on the Web. *The 7th Forum on Web and Databases*, Tokyo, 2014. (In Japanese) **[Student Incentive Award] [Business Award]**

[7] Shonosuke Ishiwatari, Danushka Bollegala, and Hitoshi Iba. A Reasearch on Semantic Composition of Compound Words. *Speech, Language and*

Communication Study Groups, Tokyo, 2013. (In Japanese)
[Best Presentation Award]

[8] Shoetsu Sato, <u>Shonosuke Ishiwatari</u>, Naoki Yoshinaga, Masashi Toyoda, and Masaru Kitsuregawa. Domain-aware response selection for online conversation. *The 30th Annual Conference of the Japanese Society for Artificial Intelligence, Fukuoka, 2016*. (In Japanese)

Awards

[1] AAMT Nagao Award, Asia-Pacific Association for Machine Translation, 2021.

[2] HONGO AI Award, *Hongo AI*, 2019.

[3] Demo Day Award, *Todai To Texas 2019 Demo Day*, 2018.

[4] Innovative Technologies 2018, *Digital Content Association of Japan*, 2018.

[5] First Prize, *UTokyo 1000k*, 2018.

[6] Best Presentation Award, *IIS PhD Student Live*, 2017.

[7] JSAI 30th Anniversary Best Paper Award, *Transactions of the Japanese Society for Artificial Intelligence*, 2016.

[8] Best Poster Award, *The 17th International Conference on Intelligent Text Processing and Computational Linguistics*, 2016.

[9] Department Chair's Award, *The University of Tokyo*, 2016.

[10] Incentive Award, *The 10th NLP Symposium for Young Researchers*, 2015.

[11] Student Incentive Award, *The 7th Forum on Web and Databases*, 2014.

[12] Business Award (given by Yahoo! JAPAN), *The 7th Forum on Web and Databases*, 2014.

[13] Best Presentation Award, *Speech, Language and Communication Study Groups, The University of Tokyo*, 2013.

Fundings

[1] MITOU Advanced, *Information-technology Promotion Agency, Japan*.
                                                                      Oct. 2019 -

[2] UTokyo IPC 1stRound, *The University of Tokyo*.   Aug. 2019 -

[3] Go Global Scholarships, *The University of Tokyo*.   Sep. 2017 - Feb. 2018

[4] Research Fellow (DC2), *Japan Society for the Promotion of Science.*
                                                            Apr. 2017 - Mar. 2019