

CURRICULUM VITAE – HIDEKAZU OIWA

Ph.D (Information Science and Technology) at [the University of Tokyo](#).
I'm now a software Engineer (Machine Learning) at Google.
My research fields are **Machine Learning** and **Natural Language Processing**.
HomePage: <http://oiwah.com>
Modified: 2018-05-29

- WORK EXPERIENCE
- [Google](#)
 - Software Engineer (Machine Learning) **Jan. 2018-**
 - Search, Question Answering
 - [Recruit Holdings Co., Ltd.](#)
 - Researcher **Apr. 2015 -**
 - ML/NLP Research&Development
 - [Japan Society for the Promotion of Science](#)
 - Research Fellowship for Young Scientists (DC1) **Apr. 2012 - Mar. 2015**
- PROFESSIONAL EXPERIENCE
- [Stanford University](#), California, USA
 - Visiting Scholar **Sep. 2015 - Aug. 2017**
 - Department: Computer Science Forum
 - Advisor: Dr. Christopher Manning
 - [NEC Laboratories America](#), California, USA
 - Visiting Research **Jul. 2013 - Sep. 2013**
Aug. 2014 - Aug. 2014
 - Project: Piece-wise linear models through structured regularization
 - Mentor: Dr. Ryohei Fujimaki
 - [Microsoft Research Asia](#), China
 - Research Intern **Mar. 2012 - May 2012**
 - Visiting Research **Nov. 2012 - Feb. 2013**
Nov. 2013- Jan. 2014
 - Project: Relation Extraction and Organization from Unstructured Web Text
 - Mentor: Dr. Junichi Tsujii
 - [Preferred Infrastructure](#), Japan
 - Research and Development Intern **Aug. 2010 - Sep. 2010**
 - Project: Clustering Library Implementation and Categorized Search
- EDUCATION
- Ph.D. (Information Science and Technology) **Mar. 2015**
 - Thesis advisor: [Hiroshi Nakagawa](#) (The University of Tokyo)
 - Thesis title: *Subgradient-based Online and Stochastic Learning with Biases*
 - Analysis and design of subgradient-based online and stochastic learning frameworks applicable to real-world problems. In applying these algorithms to real tasks, several bias factors affect the performance. We focus on several biases in an attempt to improve the applicability of learning algorithms.

M.S. (Information Science and Technology) **Mar. 2012**

- Thesis advisor: [Hiroshi Nakagawa](#) (The University of Tokyo)
- Thesis title: *Feature-aware Regularization for Online Learning*
- A new sparsity-inducing regularization in the online learning framework to automatically identify and retain rare but informative features for frequency-skewed data.

B.S. (Engineering) **Mar. 2010**

- Thesis advisor: [Fumiko Takeda](#) (The University of Tokyo)
- Thesis title: *The Economic Impact of Herd Behavior in the Japanese Loan Market*
- Quantitative analysis of the existence of herd behavior in Japanese Loan Market and its effect for economies via financial statistics.

REVIEWED
CONFERENCE PAPERS

Scalable Semantic Querying of Text, Xiaolan Wang, Aaron Feng, Behzad Golshan, Alon Halevy, George Mihaila, Hidekazu Oiwa, Wang-Chiew Tan. International Conference on Very Large Data Bases (**VLDB 2018**).

Knowledge Transfer for Unobserved Entities: Graph Neural Network on a Knowledge Graph, Takuo Hamaguchi, Hidekazu Oiwa, Masashi Shinbo, Yuji Matsumoto. International Joint Conference on Artificial Intelligence (**IJCAI 2017**). (Acceptance ratio: **26.0%**)

Partition-wise Linear Models, Hidekazu Oiwa, Ryohei Fujimaki. Neural Information Processing Systems (**NIPS 2014**). (Acceptance ratio: **24.7%**)

Formalizing Word Sampling for Vocabulary Prediction as Graph-based Active Learning, Yo Ehara, Yusuke Miyao, Hidekazu Oiwa, Issei Sato, Hiroshi Nakagawa. Conference on Empirical Methods in Natural Language Processing (**EMNLP 2014**).

Common Space Embedding of Primal-Dual Relation Semantic Spaces, Hidekazu Oiwa, Junichi Tsujii. International Conference on Computational Linguistics (**COLING-2014**). (Acceptance ratio: **31%**)

Online and Stochastic Learning with a Human Cognitive Bias, Hidekazu Oiwa, Hiroshi Nakagawa. AAAI Conference on Artificial Intelligence (**AAAI-14**). (Acceptance ratio : **28%**)

Mining words in the minds of second language learners: learner-specific word difficulty, Yo Ehara, Issei Sato, Hidekazu Oiwa, Hiroshi Nakagawa. International Conference on Computational Linguistics (**COLING-2012**).

Healing Truncation Bias : Self-weighted Truncation framework for Dual Averaging, Hidekazu Oiwa, Shin Matsushima, and Hiroshi Nakagawa. IEEE International Conference on Data Mining (**ICDM 2012**). (Acceptance ratio : **10.7%** [full paper])

Frequency-aware Truncated methods for Sparse Online Learning, Hidekazu Oiwa, Shin Matsushima, and Hiroshi Nakagawa. European Conference on

Machine Learning and Principles and Practice of Knowledge Discovery in Databases (**ECML/ PKDD 2011**). (Acceptance ratio : 20%)

The Economic Impact of Herd Behavior in the Japanese Loan Market, Ryuichi Nakagawa, Hidekazu Oiwa, and Fumiko Takeda. (Alphabetic Order) Western Economic Association International 85th Annual Conference (**WEAI 2010**).

REVIEWED
JOURNAL PAPERS

Knowledge Base Completion with Out-of-Knowledge-Base Entities: A Graph Neural Network Approach, Takuo Hamaguchi, Hidekazu Oiwa, Masashi Shimbo, Yuji Matsumoto. Transactions of the Japanese Society for Artificial Intelligence, 2018.

Mining Words in the Minds of Second Language Learners for Learner-specific Word Difficulty, Yo Ehara, Issei Sato, Hidekazu Oiwa, Hiroshi Nakagawa. Journal of Information Processing, 2018.

Feature-aware Regularization for Sparse Online Learning, Hidekazu Oiwa, Shin Matsushima, Hiroshi Nakagawa. Science China Information Sciences, Vol.57(5), pp1-21, 2014.

The Economic Impact of Herd Behavior in the Japanese Loan Market, Ryuichi Nakagawa, Hidekazu Oiwa, Fumiko Takeda. (Alphabetic Order) Pacific-Basin Finance Journal, Vol.20(4), pp600–613, 2012.

L1 regularized online supervised learning using feature frequency, Hidekazu Oiwa, Shin Matsushima, Hiroshi Nakagawa. The Information Processing Society of Japan (IPSJ) : Transactions on Mathematical Modeling and its Applications (TOM), Vol.4(3) pp84–93, 2011.

HONORS /
ACHIEVEMENTS

- | | |
|--|------------------|
| Student Fellowship | Jul. 2014 |
| • Machine Learning Summer School Pittsburgh 2014 | |
| Outstanding Internship Performance Award | Mar. 2014 |
| • Microsoft Research Asia | |
| JSAI Student Incentive Award | Jun. 2013 |
| • 27th Annual Conference of the Japanese Society for Artificial Intelligence | |
| • <i>Online Learning with an endowment effect</i> | |
| IPSJ Computer Science Research Award for Young Scientists | Mar. 2011 |
| • 82th Conference of Mathematical Modeling and Problem Solving | |
| • <i>L1 regularized online supervised learning using feature frequency</i> | |
| Presentation Award | Mar. 2011 |
| • 82th Conference of Mathematical Modeling and Problem Solving | |
| • <i>L1 regularized online supervised learning using feature frequency</i> | |
| Engineering Dean's Award for students | Mar. 2010 |
| • The University of Tokyo | |

- *The Economic Impact of Herd Behavior in the Japanese Loan Market*

Outstanding Research Award

Mar. 2010

- The University of Tokyo
- *The Economic Impact of Herd Behavior in the Japanese Loan Market*

PROGRAMMING
SKILLS

C++, Python, JavaScript.

[My GitHub Page.](#)

ACTIVITIES

Program Committee Member of [IBIS2017](#) (Largest Machine Learning Research Conference in Japan)

Review Committee Member of top-tier research conferences: NIPS (2017,2018)
ICLR (2018), ICML (2018), ACL (2017,2018)

REFERENCES

Dr. Hiroshi Nakagawa, Dr. Junichi Tsujii, Dr. Issei Sato