Curriculum Vitae – Hidekazu Oiwa

I'm a Ph.D candidate at the University of Tokyo, Japan.
My research interests are **Machine Learning, Game Theory, and Natural Language Processing**.
I'm a receiptant of Research Fellowship for Young Scientists (DC1) from JSPS.
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Contact Information

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Education

Ph.D. (Information Science and Technology) **Apr. 2012 - present**

- Thesis advisor: Hiroshi Nakagawa (The University of Tokyo)
- Research Areas: Machine Learning, Natural Language Processing, Game Theory

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 Journal Papers

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.

Reviewed Conference Papers

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 Workshop Papers

Understanding seed selection in bootstrapping, Yo Ehara, Issei Sato, Hidekazu Oiwa, and Hiroshi Nakagawa. Graph-Based Methods for Natural Language Processing (**TextGraph 2013**).

Novel Sparse Modeling by L2 + L0 Regularization, Hidekazu Oiwa, Issei Sato, Hiroshi Nakagawa. NIPS Workshop on Discrete and Combinatorial Problems in Machine Learning (**DISCML 2013**).

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
- *Online Learning with an endowment effect*

IPSJ Computer Science Research Award for Young Scientists **Mar. 2011**
- 82th Conference of Mathematical Modeling and Problem Solving
- *L1 regularized online supervised learning using feature frequency*

Presentation Award **Mar. 2011**
- 82th Conference of Mathematical Modeling and Problem Solving
- *L1 regularized online supervised learning using feature frequency*

Enginnering 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*

Work Experience

NEC Latoratories America, Cupertino, California
- Visiting Research **Jul. 2013 - Sep. 2013**
- Project: Piece-wise linear models through structured regularization
- Mentor: Shohei Fujimaki

Microsoft Research Asia, Beijing, 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: Junichi Tsujii

Preferred Infrastructure, Tokyo, Japan
- Research and Development Intern **Aug. 2010 - Sep. 2010**
- Project: Clustering Library Implementation and Categorized Search

Programming Skills

C++, Python, JavaScript

Activities

Some libraries (such as online linear classification) are in my GitHub Page.

References

Dr. Hiroshi Nakagawa
Professor
The University of Tokyo, Japan.

Dr. Junichi Tsujii
Principal Researcher
Microsoft Research Asia, China.

Dr. Ryohei Fujimaki
Research Staff Member
NEC Laboratories America, CA, USA.