

Division of Information and Systems

## Human Interface Laboratory



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### Refereed proceedings of an academic conference

[j-huang-304-012-01:2017] Y. Sato, A. Saji, and J. Huang. A 3D Sound Localization System Using Two Side Loudspeaker Matrices. oct, page = 2017.

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[j-huang-304-012-02:2017] Y. Ono, A. Saji, and J. Huang. Frontal sound localization with headphone systems characteristics of each device. oct, page = 2017.

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[markov-304-012-01:2017] K. Markov J. Yu. Deep Learning based Personality Recognition from Facebook Status Updates. In *IEEE 8th International Conference on Awareness Science and Technology*, 2017.

Many approaches have been proposed to automatically infer users personality from their social networks activities. However, the performance of these approaches depends heavily on the data representation. In this work, we apply deep learning methods to automatically learn suitable data representation for the personality recognition task. In our experiments, we used the Facebook status updates data. We investigated several neural network architectures such as fully-connected (FC) networks, convolutional networks (CNN) and recurrent networks (RNN) on the myPersonality shared task and compared them with some shallow learning algorithms. Our experiments showed that CNN with average pooling is better than both the RNN and FC.

### Unrefereed proceedings of an academic conference

[sugiyama-304-012-01:2017] M. Sugiyama. Properties of Generalized Anti Magic Graphs. In IPSJ, editor, *Proc. of IPSJ*, pages 6A–06. IPSJ, IPSJ, March 2018.

[sugiyama-304-012-02:2017] M. Sugiyama. Generation and Its Property of Anti-Magic Graphs. In IPSJ Tohoku Chapter, editor, *Technical Report of IPSJ Tohoku Chapter*, pages No.2017–3–9. IPSJ Tohoku Chapter, IPSJ, Dec 2017.

[sugiyama-304-012-03:2017] M. Sugiyama. Magic Graph Generation on Polyhedrons using SAT Solver. In IPSJ Tohoku Chapter, editor, *Technical Re-*

## Summary of Achievement

*port of IPSJ Tohoku Chapter*, pages No.2017-2-3. IPSJ Tohoku Chapter, IPSJ, Feb 2018.

## Advisor for undergraduate research and graduate research

[j-huang-304-012-03:2017] Shun Kanno. Graduation Thesis: Creation of virtual impact sounds with different impression from a real sampled original, University of Aizu, 2017.

Thesis Advisor: Huang, J.

[j-huang-304-012-04:2017] Ryo Takamura. Graduation Thesis: The relation of elevation perception in the side area with level changes in frequency sub-bands, University of Aizu, 2017.

Thesis Advisor: Huang, J.

[j-huang-304-012-05:2017] Atsushi Uemura. Graduation Thesis: Platform for comparing sound spatialization methods in virtual reality, University of Aizu, 2017.

Thesis Advisor: Huang, J.

[j-huang-304-012-06:2017] Koki Nagamine. Graduation Thesis: The size and positions of side loudspeaker matrices for sound image generation in front and upper areas, University of Aizu, 2017.

Thesis Advisor: Huang, J.

[j-huang-304-012-07:2017] Toru Kibushi. Master Thesis: 3D Sound by 5.1 channel home theater systems –Cancelling of HRTFs caused by loudspeaker positions–, University of Aizu, 2017.

Thesis Advisor: Huang, J.

## Others

[markov-304-012-02:2017] K. Markov. Introduction to Deep Learning and its applications to Health Informatics, 2017.

Invited Talk, Fukushima Medical University

**Contributions related to syllabus preparation**

[sugiyama-304-012-04:2017] Discrete Systems

[sugiyama-304-012-05:2017] Digital Signal Processing

[sugiyama-304-012-06:2017] Applied Algebra

[sugiyama-304-012-07:2017] Complex Analysis

**Advisor of a student club or circle**

[sugiyama-304-012-08:2017] Outdoor circle

**Other significant contribution toward university planning, management, or administration**

[sugiyama-304-012-09:2017] Director General

**Proposal/implementation of a company plan that addresses the current status of the region and establishes ties with the university.**

[sugiyama-304-012-10:2017] Working Group on Blind and Computer: I&I

**Did you participate in Public Lectures, and/or Open Campus? (Yes or No) If yes, please describe what you did.**

[markov-304-012-03:2017] Took part in both Summer and Autumn Open Campus events. Demonstrated the UoA Deep Learning Cloud computing cluster.

[sugiyama-304-012-11:2017] Open Campus in University Festival

[sugiyama-304-012-12:2017] Tree+ing Event in University Festival