

Yoshitaka Ushiku

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Educations

B.E. of Engineering, University of Tokyo, 2009.
M.S. of Information Science and Technology, University of Tokyo, 2011.
Currently I am a Ph.D. candidate at University of Tokyo.

Profession

Research Fellow of Japan Society for Promotion of Science (Apr. 2013 - Mar. 2015).¹

Academic Societies

Institute of Electrical and Electronics Engineers (IEEE) student member.
Association for Computing Machinery (ACM) student member.
Student member of four Japanese academic societies.

Grant

JSPS Research Fellowships for Young Scientists (Apr. 2013 - Mar. 2015).

Awards

1. The first place in the fine-grained classification task, and the second place in the classification task at ImageNet Large Scale Visual Recognition Challenge 2012.²
2. ACM Special Prize on the Best Application of a Theoretical Framework, at the 19th ACM Multimedia, Multimedia Grand Challenge, 2011.
3. The third place in the classification task and the second place in the detection task at ImageNet Large Scale Visual Recognition Challenge 2011.
4. The third place in the classification task at ImageNet Large Scale Visual Recognition Challenge 2010.

¹ <http://www.jsps.go.jp/english/e-pd/index.html>

² <http://www.image-net.org/challenges/LSVRC/2012/>

Research Interests

My research interests lie in the field of machine learning, computer vision and natural language processing. Particularly, I am developing methods for image/video understanding using natural language. Since recent works for image/video understanding try to estimate the contents with independent labels, we cannot get their relations unless we directly watch them. Understanding multimedia with natural language will 1) help us searching for videos without watching them, 2) help us multimedia retrieval with more flexible queries, and 3) help vision-impaired people. Because a large dataset is required, I also tackle a large scale visual recognition problem by taking part in ImageNet Large Scale Visual Recognition Challenge.

Principal Publications

Journal Paper

- 1 Yoshitaka Ushiku, Tatsuya Harada, and Yasuo Kuniyoshi. Image similarity improvement: latent space learning between images and long texts. Information Processing Society of Japan (IPSJ) Journal, Vol. 52, No. 12, pp.3496-3503, 2011 (in Japanese).

Conference Papers

- 2 Yoshitaka Ushiku, Tatsuya Harada, and Yasuo Kuniyoshi. Efficient Image Annotation for Automatic Sentence Generation. the 20th Annual ACM International Conference on Multimedia (ACMMM 2012), pp.549-558, 2012 (full paper, acceptance rate: 20.2%).
- 3 Yoshitaka Ushiku, Tatsuya Harada, and Yasuo Kuniyoshi. A Understanding Images with Natural Sentences. the 19th Annual ACM International Conference on Multimedia (ACMMM 2011), pp.679-682, 2011 (ACM Special Prize on the Best Application of a Theory Framework).
- 4 Yoshitaka Ushiku, Tatsuya Harada, and Yasuo Kuniyoshi. Automatic Sentence Generation from Images. the 19th Annual ACM International Conference on Multimedia (ACMMM 2011), pp.1533-1536, 2011 (short, acceptance rate: 36.3%).
- 5 Yoshitaka Ushiku, Tatsuya Harada, and Yasuo Kuniyoshi. Improvement of Image Similarity Measures for Image Browsing and Retrieval Via Latent Space Learning between Images and Long Texts. In 2010 The International Conference on Image Processing (ICIP 2010), pp.2365-2368, 2010.

A complete publication list is located at <http://www.isi.imi.i.u-tokyo.ac.jp/~ushiku/>.

Skills

Programming

C/C++, Java, and Matlab.

Sold a software program written in C++ to some industrial companies. The software is based on an algorithm developed in our laboratory.

Communication

Lead students taking part in ImageNet Large Scale Visual Recognition Challenge (ILSVRC) 2011 and 2012. Made a special effort to keep in touch with members and won the first place at ILSVRC 2012.

Language

Japanese: native.

English: very good in conversation.