

# KUNIAKI SAITO

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[Homepage](#)

## EDUCATION

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### Boston University

#### PhD student

Boston, USA

September 2018

- Focus on research of domain adaptation for image recognition; image classification, semantic segmentation and object detection, advised by Professor Kate Saenko.

### The University of Tokyo

#### Master of Information Science and Technology

Tokyo, Japan

March 2018

- GPA: 3.82
- Focus on computer science, particularly machine learning and computer vision; took classes on advanced statistical modeling, mechanisms of intelligence, and intelligence information

### Boston University

#### Visiting Student, Vision & Language Group, Dept. of Computer Science

Boston, USA

July-September 2017

- Advised by Professor Kate Saenko on Domain Adaptation
- Participated in research on domain adaptation (See publication 5)

#### Bachelor Engineering (focused on Computer Vision)

March 2016

- GPA: 3.47; Thesis: *Semi-supervised Bayesian Canonical Correlation Analysis*
- Member of Kendo club; practiced daily for 2 hours; won first prize in inter-university contest (2014)

## RESEARCH ACTIVITIES

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### Domain Adaptation (DA)

DA is a branch of transfer learning. The goal is to transfer the knowledge of a label-rich domain to a label-poor domain. I especially focused on domain adaptation for visual recognition

### Visual Question Answering (VQA), Image-sentence Retrieval

- Won first prize at VQA challenge (see Education)

## INDUSTRY EXPERIENCE

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- NVIDIA Research Intern 2019 summer
- Facebook Reality Lab Intern 2021 summer

## PUBLICATIONS AND PRESENTATIONS

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### Publications

- [1] “OpenMatch: Open-set Consistency Regularization for Semi-supervised Learning with Outliers”, **Kuniaki Saito**, Donghyun Kim, and Kate Saenko, **Neurips 2021**
- [2] “CDSP: Cross-domain Self-supervised Pre-training”, Donghyun Kim, **Kuniaki Saito**, Tae-Hyun Oh, Bryan A. Plummer, Stan Sclaroff and Kate Saenko, **ICCV2021**
- [3] “Tune it the Right Way: Unsupervised Validation of Domain Adaptation via Soft Neighborhood Density”, **Kuniaki Saito**, Donghyun Kim, Piotr Teterwak, Stan Sclaroff, Trevor Darrell, and Kate Saenko, **ICCV 2021**
- [4] “OVANet: One-vs-All Network for Universal Domain Adaptation”, **Kuniaki Saito** and Kate Saenko, **ICCV 2021**
- [5] “Universal domain adaptation through self-supervision”, **Kuniaki Saito**, Donghyun Kim, Stan Sclaroff and Kate Saenko, **NeurIPS 2020**
- [6] “COCO-FUNIT: Few-Shot Unsupervised Image Translation with a Content Conditioned Style Encoder”, **Kuniaki Saito**, Kate Saenko and Ming-Yu Liu, **ECCV 2020**
- [7] “Semi-supervised Domain Adaptation via Minimax Entropy”, **Kuniaki Saito**, Donghyun Kim, Stan Sclaroff, Trevor Darrell and Kate Saenko, **ICCV 2019**
- [8] “TWINS: Two Weighted Inconsistency-Reduced Network for Partial Domain Adaptation”, **Kuniaki Saito\***, Toshihiko Matsuura\* and Tatsuya Harada, Arxiv

- [9] “Strong-Weak Distribution Alignment for Adaptive Object Detection”, **Kuniaki Saito**, Yoshitaka Ushiku, Tatsuya Harada and Kate Saenko, **CVPR 2019**
- [10] “Open Set Domain Adaptation by Backpropagation”, **Kuniaki Saito**, Shohei Yamamoto, Yoshitaka Ushiku and Tatsuya Harada, **ECCV 2018**
- [11] “Adversarial Dropout Regularization for Domain Adaptation”, **Kuniaki Saito**, Yoshitaka Ushiku, Tatsuya Harada and Kate Saenko, **ICLR 2018**
- [12] “Maximum Classifier Discrepancy for Domain Adaptation”, **Kuniaki Saito**, Kohei Watanabe, Yoshitaka Ushiku and Tatsuya Harada, **CVPR 2018 (oral)**
- [13] “Spatio-temporal Person Retrieval via Natural Language Queries”, Masataka Yamaguchi, **Kuniaki Saito**, Yoshitaka Ushiku and Tatsuya Harada, **ICCV 2017**
- [14] “Asymmetric Tri-training for Unsupervised Domain Adaptation”, **Kuniaki Saito**, Yoshitaka Ushiku, and Tatsuya Harada, **ICML 2017**
- [15] “DeMIAN: Deep Modality Invariant Adversarial Network”, **Kuniaki Saito**, Yusuke Yukuta, Yoshitaka Ushiku, and Tatsuya Harada, TASKCV Workshop at ICCV 2017
- [16] “DualNet: Domain-Invariant Network for Visual Question Answering”, **Kuniaki Saito**, Andrew Shin, Yoshitaka Ushiku, and Tatsuya Harada, ICME, 2017

### **Presentations**

- [1] Invited to present “COCO-FUNIT: Few-Shot Unsupervised Image Translation with a Content Conditioned Style Encoder” by Nvidia, June 2020.
- [2] Invited to present “Asymmetric tri-training for Unsupervised Domain Adaptation” at MIRU 2017 (Domestic Conference on Computer Vision) (assigned to senior due to schedule conflict)
- [3] Invited to present “Asymmetric tri-training for Unsupervised Domain Adaptation” at IBIS 2017 (Domestic Conference on Machine Learning) (in English)
- [4] Invited to present “Maximum Classifier Discrepancy for Unsupervised Domain Adaptation” at MIRU 2018 (Domestic Conference on Computer Vision)

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### **A W A R D   A N D   S C H O L A R S H I P**

- NVIDIA Pioneering Research Awards at ICML 2017 (see Publications [3])
- UTokyo-TOYOTA Study Abroad Scholarship 2017

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### **A D D I T I O N A L**

- Japanese (native), English (fluent)
- Kendo enthusiast for over 14 years; reached 4-dan level (level required to be able to teach)