Kentaro Wada

5-14-24 Sendagi, Bunkyo-ku, Tokyo, 1130022, Japan www.kentaro.wada@gmail.com • +81 (80) 6177-5221 • wkentaro.com Date of birth: 31 January 1994 • Nationality: Japanese

EDUCATION University of Tokyo

MS in Information Science and Technology

September 2016 – August 2018 (expected) April 2012 – March 2016

BE in Mechano-Informatics

Supervisors: Prof. Masayuki Inaba, Prof. Kei Okada

PORTFOLIO wkentaro.com

Extensive listing of cocurricular and research projects.

DISTINCTION University of Tokyo, Toyota Dwango Advanced AI Fellowship

Google Summer of Code Student

2016

2017

Completed an open source project from the Open Source Robotics Foundation.

5th Place Winners (Pick Task) at the Amazon Picking Challenge *An internationally recognised premier robotics competition.*

2016

PUBLICATIONS

Kentaro Wada, Shingo Kitagawa, Kei Okada, and Masayuki Inaba, "Instance Segmentation of Visible and Occluded Regions for Finding and Picking Target from a Pile of Objects", *Under review at the IEEE International Conference on Intelligent Robots and Systems (IROS)*, 2018. [Paper] [Movie]

Kentaro Wada, Kei Okada, and Masayuki Inaba, "Probabilistic 3D Multilabel Real-time Mapping for Multi-object Manipulation", *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2017. [Paper] [Movie] .

Shun Hasegawa, **Kentaro Wada**, Yusuke Niitani, Kei Okada, and Masayuki Inaba, "A Three-Fingered Hand with a Suction Gripping System for Picking Various Objects in Cluttered Narrow Space", *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2017. [Paper] [Movie]

Kentaro Wada, Makoto Sugiura, Iori Yanokura, Yuto Inagaki, Kei Okada, and Masayuki Inaba, "Pick-and-Verify: Verification-based Highly Reliable Picking System for Various Target Objects in Clutter", *Journal of Advanced Robotics*, 2017. [Paper] [Movie]

Kentaro Wada, Masaki Murooka, Kei Okada, and Masayuki Inaba, "3D Object Segmentation for Shelf Bin Picking by Humanoid with Deep Learning and Occupancy Voxel Grid Map", *IEEE-RAS International Conference on Humanoid Robotics (Humanoids)*, 2016. [Paper] [Movie]

Yuki Furuta, **Kentaro Wada**, Masaki Murooka, Shunichi Nozawa, Yohei Kakichi, Kei Okada and Masayuki Inaba, "Transformable Semantic Map Based Navigation Using Autonomous Deep Learning Object Segmentation", *IEEE-RAS International Conference on Humanoid Robotics (Humanoids)*, 2016. [Paper] [Movie]

RESEARCH EXPERIENCE

Leader of the UTokyo Team at the Amazon Robotics Challenge

JSK Robotics Laboratory at the University of Tokyo

Supervisor: Associate Prof. Kei Okada

Objectives: To develop a robust state-of-the-art robot picking system for warehouse automation. 2015 edition: Verification based robust picking system by in-hand recognition. 2016 edition: Deep learning based 3D semantic segmentation. 2017 edition: Few-shot deep learning of novel object segmentation using only instance images.

Research Assistant at the UTokyo JSK Robotics Lab

2015 - 2017

2015 - 2017

JSK Robotics Laboratory at University of Tokyo

Supervisor: Associate Prof. Kei Okada

Objectives: To develop a system of continuous integration of a robotic system as a whole: (1) Same software as a robotic system on simulation and real world. (2) Enable motion testing by a simulator with dynamics.

Research Assistant at the UTokyo Tanaka Kenji Lab

2014 - 2015

Tanaka Kenji Laboratory at the University of Tokyo

Supervisor: Associate Prof. Kenji Tanaka

Objectives: To analyse customer data of an e-commerce site and segment the users' tastes by clustering user data according to page access and shopping.

WORK EXPERIENCE Donuts Co. Ltd., Tokyo

2013 - 2014

Interned as a System Integrator

Honda Research Institute, Tokyo

2014

Summer intern, Road scene understanding with deep learning

KEY SKILLS

- High-level programming skills, especially with Python and C++, trained in the research use and contributions to open source projects at GitHub.
- Experience and knowledge of constructing a large robot vision system integrating various kinds of hardware and software with the Robot Operating System (ROS).
- Knowledge of deep learning implementation with the frameworks including, Chainer, PyTorch and Caffe, and GPU computing using CUDA.

INTERESTS

Deep learning, Scene understanding, 3D reconstruction, Real-time vision system.

REFERENCES

Prof. Masayuki Inaba

Professor of the Graduate School of Information Technology and Science

University of Tokyo

73A1, Engineering Building NO. 2, 7-3-1, Hongo, Bunkyo-ku, Tokyo, 1138656, Japan inaba@jsk.imi.i.u-tokyo.ac.jp • +81 (3) 5841-7416

Prof. Kei Okada

Professor of the Graduate School of Information Technology and Science

University of Tokyo

73A2, Engineering Building NO. 2, 7-3-1, Hongo, Bunkyo-ku, Tokyo, 1138656, Japan

k-okada@jsk.imi.i.u-tokyo.ac.jp • +81 (3) 5841-7416

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