Kentaro Wada

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Date of birth: 31 January 1994 • Nationality: Japan • Portfolio: wkentaro.com

EDUCATION Imperial College London

> PhD in Computing 2018 - 2022

Supervisor: Prof. Andrew J. Davision

The University of Tokyo

MS in Information Science and Technology 2016 - 2018

BE in Mechano-Informatics 2012 - 2016

Supervisors: Prof. Masayuki Inaba, Prof. Kei Okada

DISTINCTION Contributions to the Open Source Community

2015 - 2022 Created popular software with 1-8k stars and 500-1000 daily traffics (e.g., Labelme, Gdown).

2018 - 2022

One of the fifty PhD students for the full funded scholarship.

PhD President's Scholarship of Imperial College London

Two Patents on Object 6D Pose Estimation 2021

Invented methods for 3D object-level scene understanding using vision sensors.

IEEE Robotics and Automation Society Japan Joint Chapter Young Award at IROS 2018 2018

One of the five Japanese students nominated with their conference papers.

2015 - 2017*Lead the UTokyo Team at the Amazon Robotics Challenge*

Won the 5th place our of 16 teams in 2016. Mainly worked on the vision part.

PUBLICATIONS

Kentaro Wada, Stephen James, and Andrew J. Davison, "ReorientBot: Learning Object Reorientation for Specific-Posed Placement", IEEE International Conference on Robotics and Automation (ICRA), 2022. [Paper] [Video] [Webpage]

Kentaro Wada, Stephen James, and Andrew J. Davison, "SafePicking: Learning Safe Object Extraction via Object-Level Mapping", IEEE International Conference on Robotics and Automation (ICRA), 2022. [Paper] [Video] [Webpage]

Kentaro Wada, Edgar Sucar, Stephen James, Daniel Lenton, and Andrew J. Davison, "MoreFusion: Multi-object Reasoning for 6D Pose Estimation from Volumetric Fusion", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020. [Paper] [Video] [Webpage]

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", IEEE International Conference on Intelligent Robots and Systems (IROS), 2018. [Paper] [Video]

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] [Video]

KEY SKILLS

- **Coding and software development** with Python and C++ for GUI applications, command-line tools, deep learning, volumetric reconstruction, 2D/3D visualization, and physics simulation.
- **SLAM for 3D semantic scene understanding** with expertise in object tracking, reconstruction, detection and pose estimation using onboard, moving vision sensors.
- Real-time vision and robotic system building for 3D scene understanding and motion generation with expertise in integration using The Robot Operation System (ROS).

INTERESTS Deep Learning, 3D Computer Vision, Robotics