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Woojin Cho
CV/AR ENGINEER

Education

2019-2025 **Korea Advanced Institute of Science and Technology**
PhD Culture Technology

Dissertation: "Hand Tracking for Hand-Object Interaction on Wearable AR"
Committee: Woontack Woo

2017-2019 **Korea Advanced Institute of Science and Technology**
MS Culture Technology

Thesis: 3D Object-grabbing Hand Tracking based on Prior Knowledge of Grasp
Advisor: Woontack Woo

2013-2017 **Korea Advanced Institute of Science and Technology**
BS Mechanical Engineering

Research experience

2017-2025 **Korea Advanced Institute of Science and Technology**, KR
Research Assistant, UVR Lab.
- Augmented Reality
- Computer Vision / Machine Learning

2019-2020 **CMU Intensive Program in Artificial Intelligence** Carnegie Mellon University, Pittsburgh, US
- Project Managing
- Computer Vision / Artificial Intelligence

Publications

2019-2024 **Journal publications**

Cho, Woojin, et al. "Temporally enhanced graph convolutional network for hand tracking from an egocentric camera." Virtual Reality 28.3 (2024): 1-18.

조우진, 박갑용, 우운택. "깊이 정보 재구성 및 물체의 사전 지식에 기반한 물체를 쥔 손의 자세 추적", 정보과학회논문지 46.7 (2019):673-681

	2017-2024	**Conference papers**
		Cho, Woojin, et al. "Dense Hand-Object (HO) GraspNet with Full Grasping Taxonomy and Dynamics." European Conference on Computer Vision(ECCV). Cham: Springer Nature Switzerland, 2024.
		Song, Hail, Boram Yoon, Woojin Cho, Woontack Woo. "RC-SMPL: Real-time cumulative SMPL-based avatar body generation." 2023 IEEE International Symposium on Mixed and Augmented Reality (ISMAR). IEEE, 2023.
		Cho, Woojin, Gabyong Park, and Woontack Woo. "Bare-hand depth inpainting for 3d tracking of hand interacting with object." 2020 IEEE International Symposium on Mixed and Augmented Reality (ISMAR). IEEE, 2020.
		Cho, Woojin, Gabyong Park, and Woontack Woo. "Tracking an object-grabbing hand using occluded depth reconstruction." 2018 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct). IEEE, 2018.
		조우진, 박갑용, 우운택. "깊이 정보 복원을 이용한 입자 군집 최적화 기법 기반의 물체와 상호작용하는 손 자세 추적", 한국정보과학회, 2018
		Jung, Whie, Woojin Cho, Hayun Kim, Woontack Woo. "Boosthand: Distance-free object manipulation system with switchable non-linear mapping for augmented reality classrooms." 2017 IEEE International Symposium on Mixed and Augmented Reality (ISMAR-Adjunct). IEEE, 2017.

Patents	2020	우운택, 조우진, 박갑용(2020), "물체와 상호작용하는 손의 추적을 위한 맨손 깊이 인페인팅 방법 및 시스템", 10-2020-0154704

Honors and awards	2018	**Best Paper Award, Korea Software Congress 2018**

Skills	Programming	Python, C#, C++, Matlab
	Applications	Unity 3D, Experience with AR/VR HMDs, Multi-camera system

References	Dr. Woontack Woo	Ubiquitous Virtual Reality Lab, Graduate School of Culture Technology, KAIST wwoo@kaist.ac.kr
	Dr. Tae-Kyun Kim	Computer Vision and Learning Lab, School of Computing, KAIST kimtaekyun@kaist.ac.kr