

## Hyemin Ahn

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CONTACT INFORMATION	Assistant Professor Artificial Intelligence Graduate School (AIGS) Ulsan National Institute of Science and Technology (UNIST) Ulsan, 44919, South Korea	<i>Homepage:</i> hyeminahn.oopy.io <i>Github:</i> github.com/cotton-ahn <i>Mobile:</i> +82-52-217-3456 <i>E-mail:</i> hyemin.ahn@unist.ac.kr
CITIZENSHIP	Republic of Korea	
RESEARCH INTERESTS	Machine Learning-based Human-Robot Interaction, Motion Generation, Action Understanding, Visual and Language Perception.	
EDUCATION	<b>Ph.D. in Electrical and Computer Engineering</b> <ul style="list-style-type: none"><li>Seoul National University, Korea</li><li>Integrated MSc./Ph.D. course</li></ul> <b>B.S. in Electrical and Computer Engineering</b> <ul style="list-style-type: none"><li>Seoul National University, Seoul, Korea</li></ul>	Mar. 2014 - Feb. 2020  Mar. 2010 - Feb. 2014
RESEARCH EXPERIENCE	<b>Artificial Intelligence Graduate School - UNIST</b> <ul style="list-style-type: none"><li>Assistant Professor</li></ul> <b>Institute of Robotics and Mechatronics - German Aerospace Center</b> <ul style="list-style-type: none"><li>Postdoctoral Researcher</li><li>Advisor: Prof. Dongheui Lee</li></ul> <b>Human-centered Assistive Robotics Group - Technical University of Munich</b> <ul style="list-style-type: none"><li>Postdoctoral Researcher</li><li>Advisor: Prof. Dongheui Lee</li></ul> <b>Robot Learning Laboratory - Seoul National University</b> <ul style="list-style-type: none"><li>Graduate Researcher</li><li>Advisor: Prof. Songhwai Oh</li></ul>	May. 2022 - Present  Apr. 2021 - Apr. 2022  Apr. 2020 - Mar. 2021  Mar. 2014 - Feb. 2020
INTERNATIONAL JOURNAL	<b>Hyemin Ahn</b> , Jaehun Kim, Kihyun Kim, and Songhwai Oh, “Generative Autoregressive Networks for 3D Dancing Move Synthesis from Music,” in <i>IEEE Robotics and Automation Letters</i> , 2020.  <b>Hyemin Ahn</b> , Sungjoon Choi, Nuri Kim, Geonho Cha, and Songhwai Oh, “Interactive Text2Pickup Networks for Natural Language Based Human-Robot Collaboration,” in <i>IEEE Robotics and Automation Letters</i> , 2018. (Also presented in IROS 2018)  <b>Hyemin Ahn</b> , Yoonseon Oh, Sungjoon Choi, Claire J. Tomlin, and Songhwai Oh, “Online Learning to Approach a Person with No-Regret,” in <i>IEEE Robotics and Automation Letters</i> , 2018. (Also presented in IROS 2017)	
INTERNATIONAL CONFERENCE	<b>Hyemin Ahn</b> , Esteve Valls Mascaro, and Dongheui Lee, “Can We Use Diffusion Probabilistic Models for 3D Motion Prediction?”, <i>IEEE International Conference on Robotics and Automation (ICRA)</i> , May. 2023 ( <i>accepted</i> ).	

Esteve Valls Mascaro, **Hyemin Ahn**, and Dongheui Lee, “Intention-Conditioned Long-Term Human Egocentric Action Anticipation ”, *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, Jan. 2023.

Esteve Valls Mascaro, **Hyemin Ahn**, and Dongheui Lee, “Robust Human Motion Forecasting using Transformer-based Model ”, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Oct. 2022.

**Hyemin Ahn**, Obin kwon, Kyungdo Kim, Jaeyeon Jeong, Howoong Jun, Hongjung Lee, Dongheui Lee, and Songhwai Oh, “Visually Grounding Language Instruction for History-Dependent Manipulation”, *IEEE International Conference on Robotics and Automation (ICRA)*, May. 2022.

**Hyemin Ahn** and Dongheui Lee, “Refining Action Segmentation with Hierarchical Video Representations,” *IEEE/CVF International Conference on Computer Vision (ICCV)*, Oct. 2021.

Sungjoon Choi, Min Jae Song, **Hyemin Ahn**, Joohyung Kim, “Self-Supervised Motion Retargeting with Safety Guarantee,” *IEEE International Conference on Robotics and Automation (ICRA)*, May. 2021.

Kyungdo Kim, Yoon Kyung Lee, **Hyemin Ahn**, Sowan Hahn, and Songhwai Oh, “Pedestrian Intention Prediction for Autonomous Driving Using a Multiple Stakeholder Perspective Model,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Oct. 2020.

**Hyemin Ahn**, Sungjoon Choi, Nuri Kim, Geonho Cha, and Songhwai Oh, “Interactive Text2Pickup Networks for Natural Language based Human-Robot Collaboration,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (RA-L option), Oct. 2018.

**Hyemin Ahn**, Timothy Ha, Yunho Choi, Hwiyeon Yoo, and Songhwai Oh, “Text2Action: Generative Adversarial Synthesis from Language to Action,” *IEEE International Conference on Robotics and Automation (ICRA)*, May. 2018.

**Hyemin Ahn**, Yoonseon Oh, Sungjoon Choi, Claire J. Tomlin, and Songhwai Oh, “Online Learning to Approach a Person with No-Regret,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* (RA-L option), Sep. 2017.

**Hyemin Ahn**, Hyunjun Kim, Yoonseon Oh, and Songhwai Oh, “Smartphone-Controlled Telerobotic Systems,” in *Proc. of the IEEE International Conference on Cyber-Physical Systems, Networks, and Applications (CPSNA)*, Aug. 2014.

## AWARDS AND HONORS

### Awards

- Winners of the EGO4D Long Term Action Anticipation Challenge at ECCV AND CVPR, Esteve Valls Mascaro, Hyemin Ahn, Dongheui Lee. 2022

### Scholarships

- Electric Engineering and Computer Science Graduate Student Program, Domestic Scholarship, KFAS 2015 - 2019
- Cum laude, EECS, SNU 2014

## TEACHING EXPERIENCES

### Lecturer

- AI Toolkit, UNIST Fall 2022
- Introduction to Deep Learning, Technical University of Munich Winter 2021-2022

**Teaching Assistant**

- Machine Learning in Robotics, Technical University of Munich Spring 2021
- Machine Learning in Robotics, Technical University of Munich Spring 2020
- Topics in Control and Automation, Seoul National University Spring 2017
- Introduction to Intelligent Systems, Seoul National University Fall 2014

**MEDIA AND  
BROADCAST****News**

- Video Friday: Rocket RoboBee, Willow Garage, and Caltech's Cassie Your weekly selection of awesome robot videos, IEEE Spectrum, <https://spectrum.ieee.org/automaton/robotics/robotics-hardware/video-friday-robobee-willow-garage-cassie>, Oct 2017

**ACADEMIC TALKS****Invited Talks**

- Naver, Text2Action: Generative Adversarial Synthesis from Language to Action , <https://www.youtube.com/watch?v=9xqplYzPrEk>, Nov 2017
- Deep Learning Camp Jeju by Tensorflow KR, Interactive Text2Pickup Networks for Natural Language based Human-Robot Collaboration, Jul 2018

**SKILLS**

Python, MATLAB, C++, PyTorch, Tensorflow

**OTHERS**

Singer Songwriter : <https://open.spotify.com/artist/4SX6ZEe90T0vUWwtnJqRi6>