

# Chunghyun Park

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Cheongam-Ro 77, POSTECH, Pohang-Si, South Korea (37673)

## EDUCATION

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### POSTECH

Pohang, South Korea

*Ph.D. in Artificial Intelligence*

*March 2022 – Present*

- Supervised by Prof. Jaesik Park in the Computer Vision Lab.
- Research Interest: 3D Perception, 3D Reconstruction, and Geometric Deep Learning

### POSTECH

Pohang, South Korea

*M.S. in Artificial Intelligence*

*March 2020 – Feb. 2022*

- Advisor: Prof. Jaesik Park
- Master's thesis: Fast Point Transformer for Large-scale 3D Scene Understanding

### POSTECH

Pohang, South Korea

*B.S. in Mechanical Engineering*

*March 2014 – Feb. 2019*

## INTERNATIONAL PUBLICATIONS

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\* indicates equal contribution.

- [1] Seungwook Kim\*, **Chunghyun Park\***, Yoonwoo Jeong, Jaesik Park, and Minsu Cho  
*Stable and Consistent Prediction of 3D Characteristic Orientation via Invariant Residual Learning*  
International Conference on Machine Learning (ICML), 2023
- [2] Seungwook Kim\*, Yoonwoo Jeong\*, **Chunghyun Park\***, Jaesik Park, and Minsu Cho  
*SeLCA: Self-Supervised Learning of Canonical Axis*  
NeurIPS Workshop on Symmetry and Geometry in Neural Representations (**NeurIPSW**), 2022
- [3] Jaesung Choe\*, **Chunghyun Park\***, Francois Rameau, Jaesik Park, and In So Kweon  
*PointMixer: MLP-Mixer for Point Cloud Understanding*  
European Conference on Computer Vision (**ECCV**), 2022
- [4] **Chunghyun Park**, Yoonwoo Jeong, Minsu Cho, and Jaesik Park  
*Fast Point Transformer*  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022
- [5] Yunseob Hwang\*, Han Hee Lee\*, **Chunghyun Park**, Bayu Adhi Tama, Jin Su Kim, Dae Young Cheung, Woo Chul Chung, Young-Seok Cho, Kang-Moon Lee, Myung-Gyu Choi, and Seungchul Lee  
*Improved classification and localization approach to small bowel capsule endoscopy using convolutional neural network*  
Digestive Endoscopy, 2021 (IF: 7.559)

## PROJECTS

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### Open3D | *An open-sourced 3D vision library*

Sep. 2021 – Present

- Collaboration with Intel Corp., USA.
- Currently working on a high-fidelity 3D reconstruction system.
- Contributed to the neighbor search modules for the release of Open3D 0.16.

### 3D human capturing system | *Multi-way registration and gaze estimation*

March 2020 – Oct. 2020

- Collaboration with Electronics and Telecommunications Research Institute (**ETRI**), South Korea.
- Implemented software for matching colored point clouds from multiple RGB-D cameras to capture 3D humans.
- Developed an algorithm to estimate the gaze of 3D humans by predicting facial landmarks.

### AI in Healthcare | *Capsule endoscopy video understanding*

April 2018 – June 2019

- Collaboration with the Catholic Univ. of Korea Seoul St. Mary's Hospital, South Korea.
- Developed an algorithm for automatically detecting pathologies in full-length capsule endoscopy videos.
- Implemented software of the developed algorithm with a graphical user interface for medical doctors.

## PROFESSIONAL SERVICES

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- **Reviewer**, International Journal of Computer Vision (**IJCV**), 2023
- **Reviewer**, IEEE/CVF International Conference on Computer Vision (**ICCV**), 2023
- **Reviewer**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2022-2023
- **Reviewer**, European Conference on Computer Vision (**ECCV**), 2022

## AWARDS

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- **BK21 Best Paper Award (Grand Prize)**, POSTECH GSAI, 2023
- **Qualcomm Innovation Fellowship Winner** (*Fast Point Transformer*), Qualcomm Korea Corp., 2022
- **Qualcomm Innovation Fellowship Finalist** (*PointMixer*), Qualcomm Korea Corp., 2022
- **Samsung HumanTech Paper Award (Silver Prize)**, Samsung Electronics Co. Ltd., 2022