

Chunghyun Park

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

EDUCATION

POSTECH

Pohang, South Korea

Ph.D. in Artificial Intelligence

March 2022 – Present

- Supervised by Prof. Minsu Cho 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

* 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, 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

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

- **Reviewer**, IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)
- **Reviewer**, International Journal of Computer Vision (**IJCV**)
- **Reviewer**, International Conference on Learning Representations (**ICLR**), 2024
- **Reviewer**, Conference on Neural Information Processing Systems (**NeurIPS**), 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

- **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