Hongsuk Benjamin Choi

PERSONAL DETAILS

Phone	(+1) 929-508-6991
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Homepage	Google Scholar / Github

RESEARCH INTERESTS

3D computer vision and deep learning, especially HCI-related topics including motion capture and 3D human reconstruction

EDUCATION

M.S. Candidate, Electrical and Computer Engineering   Mar 2020 - Feb 2022
Seoul National University (SNU), Seoul, South Korea
Advisor: Prof. Kyoung Mu Lee

B.S., Computer Science and Engineering   Mar 2015 - Feb 2020
Seoul National University (SNU), Seoul, South Korea

B.A., Business Administration   Mar 2013 - Feb 2020
Seoul National University (SNU), Seoul, South Korea

PUBLICATIONS

[1] **Hongsuk Choi***, Gyeongsik Moon*, Matthieu Armando, Vincent Leroy, Kyoung Mu Lee, Gregory Rogez, "MonoNHR: Monocular Neural Human Renderer" (* **equal contribution**), 3DV 2022

[2] **Hongsuk Choi**, Gyeongsik Moon, Joonkyu Park, and Kyoung Mu Lee, "Learning to Estimate Robust 3D Human Mesh from In-the-Wild Crowded Scenes", **CVPR 2022**, [ARXIV], [CODE]

[3] JoonKyu Park, Yeonguk Oh, Gyeongsik Moon, **Hongsuk Choi**, Kyoung Mu Lee, "HandOccNet: Occlusion-Robust 3D Hand Mesh Estimation Network", **CVPR 2022**, [ARXIV], [CODE]

[4] **Hongsuk Choi**, Gyeongsik Moon, Ju Yong Chang, and Kyoung Mu Lee, "Beyond Static Features for Temporally Consistent 3D Human Pose and Shape from a Video", **CVPR 2021**, [ARXIV][VIDEO][CODE]

[5] **Hongsuk Choi***, Gyeongsik Moon*, and Kyoung Mu Lee, "Pose2Mesh: Graph Convolutional Network for 3D Human Pose and Mesh Recovery from a 2D Human Pose" (* **equal contribution**), **ECCV 2020**, [ARXIV][PDF][VIDEO][CODE]

[6] Gyeongsik Moon, **Hongsuk Choi**, Kyoung Mu Lee, "Accurate 3D Hand Pose Estimation for Whole-Body 3D Human Mesh Estimation", **CVPR 2022 workshop**,

[ARXIV][CODE]

[7] Gyeongsik Moon, **Hongsuk Choi**, Kyoung Mu Lee, "NeuralAnnot: Neural Annotator for 3D Human Mesh Training Sets", **CVPR 2022 workshop**, [ARXIV]

[8] **Hongsuk Choi**, Hyeongjin Nam, Taeryung Lee, Gyeongsik Moon, Kyoung Mu Lee, "Which Data to Collect for 3D Human Pose and Shape Estimation from In-the-Wild Images?", under review

HONORS

• **Distinguished** Master Dissertation Award, Seoul National University (2022).

• **1st place** and **2nd place** at the *without association* track of **3D human pose estimation in the wild (3DPW) challenge**, workshop conjunction with **ECCV 2020** (1st in a joint orientation metric and 2nd in a joint position metric)

• **1st place** at the Qualcomm IT Tour 2019 presentation competition held by Qualcomm, proposed AR-based workout coaching system and selected as a winner by Jim Cathey (President of Qualcomm Global Business)

• Selected as a finalist in **Qualcomm Innovation Fellowship Korea** 2020, 2021

PROJECTS

HumanFit: A New Large-scale Dataset for Human Fitness
Evaluation and Feedback   May 2020 - Dec 2020
Dataset link / co-op with Sleek, SuperbAI, KakaoBrain, and Wehealed

A Large-scale Dataset for 3D Human Pose and Mesh Estimation May 2020 - Dec 2020
Dataset link / co-op with SweetK and MotionTechnology

Human Part Segmentation for AI-based Animation Coloring   Mar 2019 - Jun 2019
co-op with NCSOFT

EXPERIENCE

Researcher
• ML Research Engineer   June 2022 - Present
  Samsung AI Center New York, USA

Visiting Researcher
• Data Augmentation for
  3D Human Pose and Shape Estimation   Mar 2022 - May 2022
  NAVER AI LAB, Korea

Research Intern

- Neural Human Rendering for an Arbitrary Person
  with Implicit Function (NeRF)   Apr 2021 - Oct 2021
  NAVER LABS Europe, France
  Advisor: Gregory Rogez, Vincent Leroy

Teaching Assistant
- Introduction to Computer Programming   Mar 2019 - Dec 2020
  Department of Business Administration, SNU

Research Intern
- 3D Human Pose Estimation from a Single Image   Aug 2019 - Feb 2020
  Department of Electrical and Computer Engineering, SNU
  Advisor: Prof. Kyoung Mu Lee

- Pedestrian Tracking from a Drone Captured Video   Mar 2019 - Jul 2019
  Department of Electrical and Computer Engineering, SNU
  Advisor: Prof. Kyoung Mu Lee

Start-Up Team Leader & Software Engineer
- Workout Partner Matching and Diary Sharing Service Jul 2017 - Feb 2019
  Publicly launched at App Store & Google Play Store

Software Engineer Internship
- Movie Poster Recognition and Trailer Play with OpenGL Jun 2018 - Aug 2018
  NAVER, the largest IT company in South Korea
  Advisor: Jaeho Lee

MILITARY SERVICE

Sergeant Squad Leader of Weather Group   Mar 2015 - Mar 2017
Air Force, Republic of Korea

SKILLS

C, Java, Python, Pytorch, Android, AngularJS, TypeScript, LaTeX