

# Hongsuk Benjamin Choi

## PERSONAL DETAILS

*Phone* (+1) 929-508-6991  
*Mail* [redstonepo@gmail.com](mailto:redstonepo@gmail.com)  
*Homepage* [GitHub.io](#) / [Google Scholar](#)

## RESEARCH INTERESTS

3D computer vision and robotics, especially motion capture and 3D human hand & body reconstruction

## EDUCATION

**M.S.**, Electrical and Computer Engineering  
Seoul National University (SNU), Seoul, South Korea  
Advisor: [Prof. Kyoung Mu Lee](#)

**B.S.**, Computer Science and Engineering  
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

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- **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

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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

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### Researcher

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

### Visiting Researcher

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

### Research Intern

- Neural Human Rendering for an Arbitrary Person with Implicit Function (NeRF) Apr 2021 - Oct 2021  
NAVER LABS Europe, Grenoble, 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, Seoul, Korea  
Advisor: Jaeho Lee

## MILITARY SERVICE

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

## SKILLS

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C, JAVA, PYTHON, PYTORCH, ANDROID, ANGULARJS, TYPESCRIPT,  $\text{\LaTeX}$

## SOMETHING DIFFERENT

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I enjoy bouldering (indoor climbing) on weekends. I go to a gym almost every day. Benjamin is the English name that I used in Bristol, the U.K. American pop and J-pop are my favorite music. I am interested in all kinds of history and used to read history books a lot.