JANGHO KIM

(+82)1088958297 ⋄ kjh91@snu.ac.kr ⋄ Google Scholar ⋄ GitHub

RESEARCH INTEREST

Machine Learning, Computer Vision, Pattern Recognition and Deep Learning.

EDUCATION

Seoul National University, Korea   *Sep. 2017 - Present*
Ph.D. candidate, Program in Intelligent Systems
Department of Transdisciplinary Studies, (GPA:4.11/4.3)

- Adviser: Prof. Nojun Kwak

- Machine Intelligence Pattern Analysis Lab

Pohang University of Science and Technology (POSTECH), Korea   *Mar. 2015 - Feb. 2017*
MS., Computer Science and Engineering, (GPA:3.89/4.3)

- Adviser: Prof. Daijin Kim

- Intelligent Media Lab

Dongguk University, Korea   *Mar. 2009 - Feb. 2015*
BS., Information and Communication Engineering, Cum laude (GPA:4.18/4.5)
(Republic of Korea Air Force (ROKAF) : *Sep. 2010 - Sep. 2012*)

PUBLICATIONS

< *International Conferences* >

Jangho Kim, Simyung Chang, Sungrack Yun, Nojun Kwak, "Prototype-based Personalized Pruning", 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2021), June. 2021, online

Jangho Kim, KiYoon Yoo, Nojun Kwak, "Position-based Scaled Gradient for Model Quantization and Sparse Training", Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS 2020), Dec. 2020, online

Jangho Kim, Minsung Hyun, Inseop Chung, Nojun Kwak , "Feature Fusion for Online Mutual Knowledge Distillation", 25th International Conference on Pattern Recognition (ICPR 2020), Milan, Italy, Jan. 2021.

Inseop Chung, SeongUk Park, **Jangho Kim**, Nojun Kwak, "Feature-map-level Online Adversarial Knowledge Distillation", Thirty-seventh International Conference on Machine Learning (ICML 2020), July 2020, Online.

Jangho Kim*, Jeesoo Kim*, Nojun Kwak (* equal contribution), "StackNet: Stacking Parameters for Continual learning", CVPR 2020 Workshop on Continual Learning in Computer Vision, June 2020, Seattle WA (Online).

Jangho Kim, SeoungUK Park, Nojun Kwak, "Paraphrasing Complex Network: Network Compression via Factor Transfer", Thirty-second Conference on Neural Information Processing Systems (NeurIPS 2018), Montreal, Canada, Dec. 2018.

Jangho Kim, Yong-Joong Kim, Yonghyun Kim, Daijin Kim, "Detecting Korean characters in natural scenes by alphabet detection and agglomerative character construction", Systems, Man, and Cybernetics 2016 (SMC 2016).

*< **Open Archive** >*

Jangho Kim*, Yash Bhalgat*, Jinwon Lee, Chirag Patel, Nojun Kwak (* equal contribution), "QKD: Quantization-aware Knowledge Distillation", arXiv, Nov. 2019

Jeesoo Kim*, **Jangho Kim***, Jaeyoung Yoo, Daesik Kim, Nojun Kwak (* equal contribution), "Vehicle Image Generation Going Well With the Surroundings", arXiv, Nov. 2018

WORK EXPERIENCE

Qualcomm AI Research, Seoul
Research intern

- Machine Learning   *Jan. 2021 - current*

Qualcomm AI Research, Seoul
Research intern

- Model Pruning   *Jul. 2020 - Jan. 2021*

Qualcomm AI Research, San Diego, CA
Research intern

- Model Quantization   *Jul. 2019 - Oct. 2019*
  -Attending the MicroNet Challenge organised by a collaboration of DeepMind, GoogleAI, facebookAI and OpenAI

TEACHING EXPERIENCE

Pohang University of Science and Technology (POSTECH), Korea
Teaching Assistant

- CSED514 pattern recognition   *Mar. 2016 - Jun. 2016*

AWARDS AND HONORS

3rd ranking on ImageNet Classification, MicroNet Challenge Hosted at NeurIPS 2019	*2019*
Honor Student Award, ROKAF Technical School	*2010*
Merit-Based Scholarship, Dongguk University	*2010 - 2014*

PROJECTS

• Intelligent System for Outdoor Security Robot
funded by Ministry of Science and ICT of Korea   *Oct. 2019 - Jul. 2020*
- Object detection and continual learning

• Development of health information estimation algorithm using bio-signal and machine learning
funded by Samsung IM (Mobile Communication Business)   *Jan. 2019 - Jul. 2019*
- Health care with Deep learning.

• **Deep learning model compression using knowledge transfer**
funded by Samsung Advanced Institute of Technology (SAIT)   *Jul. 2018 - Jul. 2019*
- Model compression, Ensemble model.

• **Development of transfer learning technology for improving traffic object detection performance**
funded by Ministry of Science and ICT of Korea   *May. 2018 - Nov. 2018*
- Knowledge transfer.

• **Development of Real-time Image Recognition Defense Big Data Platform ("D-Net")**
funded by Agency for Defense Development   *Jul. 2017 - Nov. 2018*
- Deep Model compression.

• **Development of Danger/Abnormal Situation Recognition and Prediction Technology for Intelligent systems**
funded by the Ministry of Science and ICT of Korea   *Jan. 2016 - Dec. 2016*
- Car detection, license plate, text detection, and text recognition.

• **KT-POSTECH Open R&D Development of Object Analysis Technology for Media Intelligence**
funded by Korea Telecom (KT)   *Jan. 2016 - Dec. 2016*
- Abandoned and Removed Object Detection and English Text Detection methods.

• **Development of Image Analysis Technology for General Product Recognition System**
funded by Samsung DMC (R&D center)   *Dec. 2015 - Dec. 2016*
- Object Recognition method using deep convolutional neural networks to classify products and logos.

• **Development of wearable display device technology to display information on efficient excavator work**
funded by Doosan Infracore   *Feb. 2015 - Nov. 2015*
- Google glass application.