

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*, Jeosoo 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”, IEEE International Conference on 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.