

Minguk Kang

mgekang@postech.ac.kr | Google Scholar | GitHub

Chungam-Ro 77, POSTECH, Pohang-Si, Republic of Korea (37673)

EDUCATION

POSTECH, Pohang, Republic of Korea

- M.S. in Graduate School of AI Feb 2020 – Present
 - Interest: Contrastive Learning, Generative Adversarial Networks
 - GPA: 4.11/4.30

Pusan National University, Busan, Republic of Korea

- B.S. in Engineering Mar 2013 – Aug 2019
 - Major: Mechanical Engineering, Minor: Statistics
 - Summa Cum Laude (graduated at the top of college of engineering, 1/394)

RESEARCH EXPERIENCE

Adobe Research Creative Intelligence Lab, Remote work South Korea

- Research Intern Jul 2022 – Present
 - Adviser: Dr. Taesung Park and Dr. Sylvain Paris

Computer Vision Laboratory, Pohang, Republic of Korea

- Graduate Student Feb 2020 – Present
 - Adviser: Professor Jaesik Park

Korea Aerospace Research Institute, Deajeon, Republic of Korea

- Research Participant Jul 2019 – Aug 2019
- Developed a deep learning model to detect anomalous behavior of drones during actual swarm flight test.

Vision and Intelligent System Laboratory, Pusan National University

- Undergraduate Research Student Aug 2017 – Jan 2020
 - Adviser: Professor Dongjoong Kang

PUBLICATIONS CONFERENCES

- [C1] Minguk Kang, Jun-Yan Zhu, Richard Zhang, Eli Schittmann, Jaesik Park, Sylvain Paris, and Taesung Park, “Scaling up GANs for Text-to-Image Synthesis”, In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.
- [C2] Jinoh Cho, Minguk Kang, Vibhav Vineet, and Jaesik Park, “Context-Aware Image Completion”, Under submission, 2022.
- [C3] Minguk Kang, Woohyeon Shim, Minsu Cho, and Jaesik Park, “Rebooting ACGAN: Auxiliary Classifier GANs with Stable Training”, In *International Conference on Neural Information Processing Systems (NeurIPS)*, 2021.
- [C4] Minguk Kang and Jaesik Park, “ContraGAN: Contrastive Learning for Conditional Image Generation”, In *International Conference on Neural Information Processing Systems (NeurIPS)*, 2020.
- [C5] Minguk Kang, Honghyun Kim, and Dongjoong Kang, “Finding a High Accuracy Neural Network for the Welding Defects Classification Using Efficient Neural Architecture Search via Parameter Sharing”, In *International Conference on Control Automation and Systems (ICCAS)*, IEEE, 2018, pp. 402-405.

JOURNALS

- [J1] Minguk Kang, Joonghyuk Shin, and Jaesik Park, “StudioGAN: A Taxonomy and Benchmark of GANs for Image Synthesis”, *arXiv:2206.09479*, 2022.

[J2] Hyojung Ahn, Hanlim Choi, Minguk Kang, and Sungtae Moon, “Learning-Based Anomaly Detection and Monitoring for Swarm Drone Flights”, *Applied Science*, 2019, 9, 5477.

OPEN SOURCE	PyTorch StudioGAN (★3100+) <ul style="list-style-type: none">▪ Pytorch library providing implementations of representative Generative Adversarial Networks (GANs).
AWARDS & SCHOLARSHIP	1st Prize, BK21 outstanding paper awards , POSTECH Graduate School of AI, January 2022 Qualcomm Innovation Fellowship Korea , Qualcomm, November 2021 Silver Prize , 16th Samsung Electro-Mechanics Paper Awards, 2020 National Science and Engineering Scholarship , Korea Student Aid Foundation <ul style="list-style-type: none">▪ Received full scholarship for 8 semesters. Mar 2013 – Aug 2019
TALKS	Representative Research Achievement: <ul style="list-style-type: none">▪ StudioGAN: A Taxonomy and Benchmark of GANs for Image Synthesis, The Graduate School of AI Symposium, 2022. Tech Talk: <ul style="list-style-type: none">▪ Demystifying the Instability of ACGAN and Providing Large-scale GAN Benchmark for Fast and Fair Evaluation, UNIST, 2022.▪ Rebooting ACGAN: Auxiliary Classifier GANs with Stable Training, NAVER and EIRIC.
ACADEMIC SERVICES	Reviewer <ul style="list-style-type: none">▪ Journal Reviewer 2022: IJCV▪ Conference Reviewer 2022: ICLR, CVPR, ECCV, Neurips▪ Conference Reviewer 2021: MVA, ICCV
PROFICIENCIES	General Skill <ul style="list-style-type: none">▪ Language: Korean (Native), English (Conversational)▪ Machine Learning Library: TensorFlow (Advanced), PyTorch (Advanced)