SONG PARK

Google Scholar Github

★ https://8uos.github.io

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RESEARCH INTERESTS

I am interested in interpreting and understanding visual concepts with multiple view points (e.g., mood, emotion, style, texture) to extract better visual representations for real-world downstream tasks. To be specific, I have focused on the following research areas:

- · Representation Learning
- · Style Transfer and Image to Image Translation

EDUCATION

M.S. and Ph.D. in Integrated Technology

Mar 2016 - Feb 2022

Advisor: Prof. Hyunjung Shim

Yonsei University

B.S. in Integrated Technology

Mar 2013 - Feb 2016

Yonsei University

PUBLICATIONS

- 1. Sanghyuk Chun, **Song Park**, "StyleAugment: Learning Texture De-biased Representations by Style Augmentation without Pre-defined Textures", arXiv preprint arXiv:2108.10549.
- 2. Song Park, Sanghyuk Chun, Junbum Cha, Bado Lee, Hyunjung Shim, "Multiple Heads are Better than One: Few-shot Font Generation with Multiple Localized Experts", International Conference on Computer Vision (ICCV), 2021.

https://github.com/clovaai/mxfont

3. Song Park*, Sanghyuk Chun*, Junbum Cha, Bado Lee, Hyunjung Shim, "Few-shot Font Generation with Localized Style Representations and Factorization", IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2021 and AAAI Conference on Artificial Intelligence (AAAI), 2021.

https://github.com/clovaai/lffont

- 4. Joo Hyun Park*, **Song Park***, Hyunjung Shim, "Semantic-aware neural style transfer, Image and Vision Computing (**IMAVIS**), vol. 87, pp. 13-23, 2019.
- 5. Junsuk Choe*, **Song Park***, Kyungmin Kim*, Joo Hyun Park*, Dongseob Kim*, Hyunjung Shim, "Face Generation for Low-Shot Learning Using Generative Adversarial Networks", International Conference on Computer Vision Workshops (**ICCVW**), 2017.

Under Review

- 1. Song Park*, Sanghyuk Chun*, Junbum Cha, Bado Lee, Hyunjung Shim, "Few-shot Font Generation with Weakly Supervised Localized Representations", IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI, under major revision), 2021.
- 2. Sanghyuk Chun, Wonjae Kim, **Song Park**, Seong Joon Oh, Minsuk Chang, "ECCV Caption: Correcting False Negatives by Collecting Machine-and-Human-verified Image-Caption Associations for MS-COCO"

^{*} indicates equal contribution.

RESEARCH EXPERIENCES

Research Scientist

NAVER AI Lab.

Visiting Researcher Sep 2020 - Sep 2021

NAVER AI Lab.

 $Mentor:\ Sanghyuk\ Chun$

Research Intern Mar 2020 - Sep 2020

NAVER CLOVA

Mentor: Sanghyuk Chun, Junbum Cha, and Bado Lee

PROJECTS

Few-shot Font Generation

Mar 2020 - Apr 2021

Jan 2022 - Present

- Generating a full font library with only a few reference glyphs.
- 2 papers are published: MX-Font (ICCV 2021) and LF-Font (AAAI 2021).
- 2 github repositories are available: MX-Font, LF-Font
- · Working on unified few-shot font generation benchmark.

Self-supervised Deep Image Hashing

Mar 2018 - Feb 2020

• Compressing the image data into binary codes while preserving the semantic similarity.

Image Completion for Restoring Blocked Areas

Jul 2019 - Jan 2020

- · Sponsored by Electronics and Telecommunications Research Institute (ETRI).
- · Developed a module restores holes caused by blocking in Light-field and multi-viewpoint images.

Semantic Style Transfer

Dec 2018 - Feb 2019

- Resolving "semantic mismatch" problems in existing style transfer methods utilizing segmentation map.
- 1 paper is published in IMAVIS, 2019.

Reconstructing Environment Map

Nov 2017 - Feb 2018

· Predicting the surrounding environment map from a single image of the scene.

Face Generation and Recognition

Mar 2017 - Oct 2017

- · Augmenting the low-shot face dataset using GAN model to overcome limitations of low-shot learning.
- 1 paper is published in ICCVW, 2017.

Movie Poster Classification

Mar 2016 - Feb 2017

- · Training a deep model which classifies a movie poster into its genres.
- · Crawled movie posters and their genres from web (IMDb).

ACADEMIC ACTIVITIES

Reviewer

· SIGGRAPH 2022

SCHOLARSHIPS

Full scholarship for Graduate School

Mar 2016 - Feb 2020

Institute for Information and Communications Technology Promotion (IITP)

Full scholarship for Undergraduate School

Mar 2013 - Feb 2016

Institute for Information and Communications Technology Promotion (IITP)