



SONG PARK

 Google Scholar  Github

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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. candidate 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

* *indicates equal contribution.*

1. **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>
2. **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>
3. Joo Hyun Park*, **Song Park***, Hyunjung Shim, “*Semantic-aware neural style transfer*, Image and Vision Computing (**IMAVIS**), vol. 87, pp. 13-23, 2019.
4. 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, “*Annotators are Biased Towards Models: A Study on the Effect of Model Biases during Crowdsourcing Annotation*”
3. Sanghyuk Chun, **Song Park**, “*StyleAugment: Learning Texture De-biased Representations by Style Augmentation without Pre-defined Textures*”

RESEARCH EXPERIENCES

- 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

- Language-guided Style Transfer using CLIP features** May 2021 - Present
• Developing a style transfer method which utilizes CLIP features as a language guidance.
- Few-shot Font Generation** Mar 2020 - Apr 2021
• 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).

SKILLS

- Programming Languages & Frameworks (Selected)**
• Programming Language: Python
• Machine learning tools: PyTorch, Tensorflow, OpenCV, NumPy, Scikit-learn.

SCHOLARSHIPS

- Full scholarship for Graduate School** Mar 2016 - Present
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)