Taeoh Kim

Research Engineer / Tech Lead.
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RESEARCH INTERESTS

- Visual Representation Learning
- Video Understanding

EXPERIENCES

- Research Engineer / Tech Lead. at CLOVA, NAVER Cloud Corp., Korea (Jan. 2023 ~ Present)

- Research Engineer at CLOVA, NAVER Corp., Korea (Aug. 2021 ~ Dec. 2022)

- Research Intern at Clova, NAVER Corp., Korea (Dec. 2020 ~ Jun. 2021) / Video Team, Working with Minho Shim, Jinhyung Kim, and Dongyoon Wee

- Graduate Student Researcher at Image and Video Pattern Recognition Lab., Yonsei University, Korea (Mar. 2015 ~ Aug. 2021) / Research on Image/Video Compression and Restoration, Face Recognition, and Video Understanding

- Part-time Lecturer at CUBOX Inc., Korea (Aug. 2020 ~ Aug. 2021) / Face Recognition and Face Anti-Spoofing

EDUCATION

Mar. 2015 ~ Aug. 2021	**Yonsei University** School of Electrical and Electronic Engineering	Seoul, Korea
	Advisor: Sangyoun Lee	
	Ph.D. in Electrical and Electronic Engineering	
Mar. 2009 ~ Feb. 2015	**Yonsei University** School of Electrical and Electronic Engineering	Seoul, Korea
	B.S. in Electrical and Electronic Engineering	

CONFERENCES

1. Pilhyeon Lee, **Taeoh Kim**, Minho Shim, Dongyoon Wee, Hyeran Byun, "Decomposed Cross-modal Distillation for RGB-based Temporal Action Detection", **CVPR**, 2023

2. **Taeoh Kim**, Jinhyung Kim, Minho Shim, Sangdoo Yun, Myunggu Kang, Dongyoon Wee, Sangyoun Lee, "Exploring Temporally Dynamic Data Augmentation for Video Recognition", **ICLR** 2023 (Notable Top 25%)

3. Jinhyung Kim, **Taeoh Kim**, Minho Shim, Dongyoon Han, Dongyoon Wee, Junmo Kim, "Frequency

Selective Augmentation for Video Representation Learning", **AAAI** 2023

4. Chajin Shin, **Taeoh Kim**, Sangjin Lee, Sangyoun Lee, "Test-Time Adaptation for Out-of-distributed Image Inpainting", International Conference on Image Processing (ICIP) 2021

5. **Taeoh Kim***, Hyeongmin Lee*, MyeongAh Cho*, Ho Seong Lee, Dong Heon Cho, Sangyoun Lee, "Learning Temporally Invariant and Localizable Features via Data Augmentation for Video Recognition.", **ECCV** Workshops 2020 (* Equal Contribution) (**Oral Presentation**)

6. Evangelos Ntavelis, Andrés Romero, Siavash Bigdeli, Radu Timofte, Zheng Hui, Xiumei Wang, Xinbo Gao, Chajin Shin, **Taeoh Kim**, Hanbin Son, Sangyoun Lee, et al., "AIM 2020 Challenge on Image Extreme Inpainting.", **ECCV** Workshops 2020

7. Sangjin Lee, Hyeongmin Lee, **Taeoh Kim**, Sangyoun Lee, "Extrapolative-Interpolative Cycle-Consistency Learning For Video Frame Extrapolation.", International Conference on Image Processing (ICIP) 2020

8. Hyeongmin Lee, **Taeoh Kim**, Tae-Young Chung, Daehyun Pak, Yuseok Ban, Sangyoun Lee, "AdaCoF: Adaptive Collaboration of Flows for Video Frame Interpolation.", **CVPR** 2020

9. MyeongAh Cho, Tae-Young Chung, **Taeoh Kim**, Sangyoun Lee, "NIR-to-VIS Face Recognition via Embedding Relations and Coordinates of the Pairwise Features.", International Conference on Biometrics (ICB) 2019 (**Oral Presentation**)

10. **Taeoh Kim**, Hyeongmin Lee, Hanbin Son, Sangyoun Lee, "SF-CNN: A Fast Compression Artifacts Removal via Spatial-To-Frequency Convolutional Neural Networks.", International Conference on Image Processing (ICIP) 2019

11. Yongju Lee, **Taeoh Kim**, Taejae Jeon, Hanbyeol Bae, Sangyoun Lee, "Facial Landmark Detection using Gaussian Guided Regression Network", International Technical Conference on Circuits/Systems, Computers and Communications (ITC-CSCC) 2019

12. Hyeongmin Lee, **Taeoh Kim**, Eungyeol Song, Sangyoun Lee, "Collabonet: Collaboration of Generative Models by Unsupervised Classification.", International Conference on Image Processing (ICIP) 2018

13. **Taeoh Kim**, Changhyun Park, Hanbin Son, Sangyoun Lee, "A Video Coding System based on Coefficient Modeling Considering Visual Artifact", International Conference on Electronics, Information, and Communication (ICEIC) 2017

JOURNALS (SCIE/ESCI)

1. MyeongAh Cho, **Taeoh Kim**, Woo Jin Kim, Suhwan Cho, Sangyoun Lee, "Unsupervised Video Anomaly Detection via Normalizing Flows with Implicit Latent Features", *PATTERN RECOGNITION*, (2022)

2. **Taeoh Kim**, Sangyoun Lee, "Geometry-Aware Deep Video Deblurring via Recurrent Feature Refinement", *IEEE TRANSACTIONS ON IMAGE PROCESSING*, (2022)

3. Hanbin Son, **Taeoh Kim**, Hyeongmin Lee, Sangyoun Lee, "Enhanced Standard Compatible Image Compression Framework based on Auxiliary Codec Networks", *IEEE TRANSACTIONS ON IMAGE PROCESSING*, (2022)

4. **Taeoh Kim**, Chajin Shin, Sangjin Lee, Sangyoun Lee, "Block-Attentive Subpixel Prediction Networks for Computationally Efficient Image Restoration", *IEEE ACCESS*, (2021)

5. MyeongAh Cho, **Taeoh Kim**, Ig-Jae Kim, Kyungjae Lee, Sangyoun Lee, "Relational Deep Feature Learning for Heterogeneous Face Recognition", *IEEE TRANSACTIONS ON INFORMATION FORENSICS AND SECURITY*, (2021)

6. Minkyu Lee, **Taeoh Kim**, Yuseok Ban, Eungyeol Song, Sangyoun Lee, "Sampling Operator to Learn the Scalable Correlation Filter for Visual Tracking", *IEEE ACCESS*, (2019)

PATENTS

1. LEE, Sang Youn, **KIM, Tae Oh**, SON, Han Bin, LEE, Hyeong Min, "Apparatus for Compressing Image, Learning Apparatus and Method Thereof", KR-Registration No. 10-2245682-0000

2. LEE, Sang Youn, LEE, Hyeong Min, **KIM, Tae Oh**, "Apparatus and method for interpolating frames based on multiple flows", KR-Registration No. 10-2201297-0000

PROJECTS

- Locally Controllable DNN Algorithm Development, Samsung Research, Korea / Project Leader (May. 2019 ~ Dec. 2019)

- Development of Compact Deep Networks for Image Processing, Samsung Research, Korea / Project Leader (Apr. 2018 ~ Dec. 2018)

- Development of Novel Coding Framework based on Video Processing Quality-Aware Modeling, Samsung Research, Korea / Project Leader (Jul. 2015 ~ Aug. 2017)

- Development of Next Generation Digital TV Broadcasting System, Information Technology Research Center (ITRC), Ministry of Science, Korea / Project Leader (Sep. 2014 ~ Dec. 2015)

AWARDS AND HONORS

- 2nd Place, Image Extreme Inpainting Challenge Track 1: Classic Inpainting, Advances in Image Manipulation (AIM) 2020 Workshop, ECCV 2020, United Kingdom (Aug. 2020)

- 4th Place, Visual Inductive Priors for Data-Efficient Action Recognition Challenge, 1st Visual Inductive Priors (VIPriors) for Data-Efficient Deep Learning Workshop, ECCV 2020, United Kingdom (Aug. 2020)

- 7th Place, Embedded Real-Time Inference Challenge, 3rd International Workshop on Computer Vision for UAVs, CVPR 2019, United States (Jun. 2019)

- 1st Place, "Tell-A-Byte", Competition in Global Entrepreneurship Camp Korea, IITP Korea and Stanford University, Korea (Aug. 2015)

- National Science & Technology Scholarship, KOSAF, Korea (Mar. 2009 ~ Feb. 2015)

ACADEMIC SERVICES

- Conference Reviewer
  - CVPR 2022, 2023
  - ICCV 2023
  - AAAI 2023
  - ECCV 2022
  - ICIP 2022, 2023
- Journal Reviewer
  - IEEE Transactions on Circuits and Systems for Video Technology (IEEE TCSVT)
  - IEEE Transactions on Industrial Informatics (IEEE TII)
  - Digital Signal Processing (DSP)
  - Artificial Intelligence Review (AIRE)
  - Neurocomputing

OTHER EXPERIENCES

- Talks
  - 19 Presentations at PR12 YouTube Channel
- Organizer
  - SNU AI Study (Season 7~10)
- Teaching Assistant
  - Digital Signal Processing (2015 Spring)
  - Signal and Systems (2015 Fall)
  - Advanced EE Experiments (2016 Fall)
  - Advanced EE Experiments (2017 Spring)
  - Advanced EE Experiments (2017 Fall)
  - Junior Seminar: Deep Learning for Visual Recognition (2020 Fall)