MYUNGSEO SONG

micmic123@snu.ac.kr ◇ Google Scholar ◇ Personal Website

RESEARCH INTERESTS

Machine learning, computer vision, and robotics, focusing on generalization under distribution shifts and self-supervised learning, with particular interest in vision-language models, multimodal learning, and 3D/4D vision.

EDUCATION

Seoul National University Mar 2018 - Feb 2026 (Expected)
B.S. in Computer Science and Engineering (GPA: 3.75/4.30) *Seoul, Korea*
* Includes 34-month mandatory military service in South Korea.

PUBLICATIONS

(*Equal contribution is denoted by "*".*)

[1] **Myungseo Song**, Jin-Woo Park, Jong-Seok Lee, "Exploring the Camera Bias of Person Re-identification," *International Conference on Learning Representations (ICLR)*, 2025. (Spotlight paper, Accept. rate $< 5\%$)

[2] **Myungseo Song**, Jinyoung Choi, Bohyung Han, "A Training-Free Defense Framework for Robust Learned Image Compression," *arXiv Preprint*, 2024.

[3] *Seongyeon Park, ***Myungseo Song**, Bohyung Kim, Tae-Hyun Oh, "Unsupervised Pre-training for Data-Efficient Text-to-Speech on Low Resource Languages," *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2023.

[4] ***Myungseo Song**, *Seongyeon Park, Bohyung Kim, Tae-Hyun Oh, "Speech De-warping: Unsupervised Pre-training for Data-Efficient Text-to-Speech on Low Resource Languages," *International Conference on Machine Learning (ICML) Workshop on Machine Learning for Audio Synthesis*, 2022. (Oral presentation)

[5] **Myungseo Song**, Jinyoung Choi, Bohyung Han, "Variable-Rate Deep Image Compression through Spatially-Adaptive Feature Transform," *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021.

RESEARCH EXPERIENCE

Lead Machine Learning Researcher Nov 2023 - May 2025
mAy-I, Inc. *Seoul, Korea*

- Analyzed and mitigated camera bias in person re-identification (ReID) under domain shifts and unsupervised learning (**ICLR 2025 Spotlight**).
- Improved person ReID performance by 29.2% mAP on private benchmarks.
- Built large-scale person ReID datasets (over 10K identities) from real-world environments.
- Promoted within one year to lead research team of five members, directing projects on object detection, multi-camera tracking, and gender/age estimation.

Machine Learning Researcher Oct 2021 - Oct 2023
CNAI, Inc. *Seoul, Korea*

- Researched label-efficient text-to-speech (TTS), proposing unsupervised pre-training and data augmentation approaches (**ICMLW 2022 Oral and ICASSP 2023**).

- Developed few-shot audio-driven talking face generation models and constructed large-scale, high-resolution audio-visual datasets of human speech through in-house studio and crowdsourcing.
- Constructed large-scale 3D food detection dataset using RGB-D sensor (Azure Kinect) and developed monocular 3D object detection model.

Undergraduate Researcher Sep 2020 - Sep 2021
Computer Vision Lab at Seoul National University *Seoul, Korea*

- Advisor: Prof. Bohyung Han.
- Designed neural image compression framework conditioned on quality map, enabling task-aware compression without task-specific training (**ICCV 2021**).
- Analyzed robustness of neural image compression against adversarial attacks and proposed training-free defense method leveraging self-supervised nature of compression (preprint).

Research Intern Jul 2020 - Aug 2020
NCSOFT, Inc. *Seongnam, Korea*

- Researched few-shot, unsupervised image-to-image translation models based on GANs.
- Constructed large-scale image datasets for model training and evaluation using web crawling.

Undergraduate Researcher Mar 2020 - Jun 2020
Data Mining Lab at Seoul National University *Seoul, Korea*

- Advisor: Prof. U Kang.
- Researched RNN-based sequential recommender system for E-commerce.
- Participated through Undergraduate Research Opportunity Program (UROP).

OTHER EXPERIENCE

Software Engineering Intern Jan 2020 - Feb 2020
Intellisys, Inc. *Seoul, Korea*

- Developed web crawling-based data collection pipeline and data management system.

SCHOLARSHIPS

Youlchon AI Young Researcher, Youlchon Foundation & SNU AI Institute Aug 2025
Jung-Hun Scholarship, Jung-Hun Foundation Apr 2019

SKILLS

Programming Languages: Python, Java, C/C++
Deep Learning Frameworks: PyTorch, TensorFlow
Libraries & Tools: Numpy, OpenCV, Open3D, Pandas, Git, Docker
Languages: English (Fluent), Korean (Native)

ACADEMIC SERVICE

Reviewer

- Journal: TIP (2023)
- Conference: ICLR (2025), NeurIPS (2024-2025), WACV (2023)