

Dongyeun Lee

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EDUCATION

- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, South Korea
M.S. - School of Electrical Engineering (Advisor: Prof. Junmo Kim) Mar. 2021 - Aug. 2022
- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, South Korea
B.S. - School of Computing Mar. 2016 - Feb. 2021

EXPERIENCE

- **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, South Korea
Research Scientist (Alternative military service). Apr. 2024 - Current
- **Klleon AI Research** Seoul, South Korea
AI Researcher (Alternative military service). Worked on a virtual human avatar. May 2022 - Mar. 2024
- **Vision and Learning Laboratory, KAIST** Daejeon, South Korea
Research Intern. Worked on GAN-based Makeup Style Transfer project. Jan. 2020 - Jun. 2020
- **Dabeoo** Seoul, South Korea
Research Intern. Worked on Arial Image Change Detection and Object Detection. Apr. 2019 - Aug. 2019

PUBLICATIONS

- **RADIO: Reference-Agnostic Dubbing Video Synthesis** WACV 2024
Dongyeun Lee, Chaewon Kim*, Sangjoon Yu, Jaejun Yoo†, Gyeong-Moon Park†*
- **Training Cartoonization Networks without Cartoon** ICIP 2023
Doyeon Kim, Dongyeun Lee, Donggyu Joo, Junmo Kim
- **Fix the Noise: Disentangling Source Feature for Controllable Domain Translation** CVPR 2023
Dongyeun Lee, Jae Young Lee, Doyeon Kim, Jaehyun Choi, Jaejun Yoo, Junmo Kim
- **Fix the Noise: Disentangling Source Feature for Transfer Learning of StyleGAN** CVPRW 2022
Dongyeun Lee, Jae Young Lee, Doyeon Kim, Jaehyun Choi, Junmo Kim Best Paper Award

SELECTED PROJECTS

- **Explicit Controllable 3D-Aware Talking Head Synthesis:** Implement 3D parametric model guided 3D-Aware Talking Head framework. Tech: Python, Pytorch, Pytorch3D, FLAME. **Klleon AI Research.** (Apr. 2023 - Aug. 2023)
- **High-Fidelity Audio Driven Talking Head Synthesis:** Led the development of core Lip-Sync pipeline including problem design, data collection, pre-processing, and ML model training and result deployment. Tech: Python, Pytorch. **Klleon AI Research.** (May 2022 - Mar. 2024) **Applied product:** Chat-Avatar, Klone Studio.
- **Photo-Realistic Sign Language Generation:** Framework that consists of Text→Pose & Pose→Photo-Realistic. A full cycle project that includes data collection, pre-processing, ML model training, and evaluation. Utilized OpenPose to extract facial landmarks and pose. Tech: Python, Pytorch, OpenPose. **KAIST.** (Mar. 2021 - Jun. 2021)
Acknowledgement: Non-Autoregressive Sign Language Production with Gaussian Space (BMVC 2021).
- **Hangul Font Generation:** Service that produces a custom Hangul font from random sentences without labels written on squared manuscript papers. A full pipeline that includes raw data pre-processing, OCR, and ML model. Tech: Python, Pytorch. **KAIST.** (Sep. 2020 - Dec. 2020)
- **Makeup Style Transfer:** Train and improve ML model for Makeup Style Transfer by leveraging SOTA models and methods. Tech: Python, Pytorch. **Vision and Learning Laboratory, KAIST.** (Jan. 2020 - Jun. 2020)
- **News Stream Data Analysis:** Detect and analyze top-k leading events in a stream of news. Experience in extracting meaningful information from raw text data. Tech: Python, Keras, NLTK. **KAIST.** (Sep. 2019 - Dec. 2019)
- **Deepfake Detection Framework:** Project that provides basic pre-trained models and datasets for Deepfake Detection. Tech: Python, Keras. **KAIST.** (Sep. 2019 - Dec. 2019)
- **M2Det Implementation:** Reproduce Object Detection framework. Tech: Python, Keras. (Aug. 2019 - Aug. 2019)
- **Arial image Change Detection and Object Detection:** Full cycle project including problem design, data collection and preprocessing, ML model training, and result deployment. Tech: Python, Keras. **Dabeoo.** (Apr. 2019 - Aug. 2019)

SKILLS SUMMARY

- **Languages:** Python, Bash, C, JAVA
- **Frameworks:** Pytorch, Pytorch3D, TensorFlow, Keras, OpenCV, Scikit, Librosa, NLTK, Pandas
- **Tools:** Git, Docker, Nsight
- **Basic Knowledge:** R, Node.js, JavaScript, MongoDB, MySQL, Scala, Kotlin, C++

HONORS AND AWARDS

- Best Paper Award, CVPR 2022 Workshops on AI for Content Creation, 1500\$ Sponsored by Google.