Jun myeong Choi

https://chedgekorea.github.io chedgekr@cs.unc.edu

EDUCATION

University of North Carolina at Chapel Hill Aug. 2022 – Present
Graduate Student *North Carolina, United States of America*

- Doctor of Philosophy in Computer Science
- Advisor: Roni Sengupta

University of North Carolina at Chapel Hill Aug. 2022 – May. 2024
Graduate Student *North Carolina, United States of America*

- Master of Science in Computer Science
- Advisor: Roni Sengupta

Korea University Mar. 2017 – Aug. 2022
Undergraduate Student *Seoul, Republic of Korea*

- Bachelor of Science in Computer Science and Engineering
- GPA: 4.33/4.5 Major GPA: 4.48/4.5

PUBLICATION

ScribbleLight: Single Image Indoor Relighting with Scribbles
Jun Myeong Choi, Annie Wang, Pieter Peers, Anand Bhattad, Roni Sengupta
CVPR 2025 [*paper*] [*project*]

Personalized Video Relighting With an At-Home Light Stage
Jun Myeong Choi, Max Christman, Roni Sengupta
ECCV 2024 [*paper*] [*project*]

Building Secure and Engaging Video Communication by Using Monitor Illumination
Jun Myeong Choi, Johnathan Leung, Noah Frahm, Max Christman, Gedas Bertasius, Roni Sengupta
CVPR 2024 - Workshop on Media Forensics [*paper*]

AE-NeRF: Auto-Encoding Neural Radiance Fields for 3D-Aware Object Manipulation
Mira Kim, Jaehoon Ko, Kyusun Cho, **Junmyeong Choi**, Daewon Choi, and Seungryong Kim
Pre-print [*paper*]

RESEARCH EXPERIENCE

Computer Vision Laboratory, University of North Carolina at Chapel Hill Aug. 2022 – Present
Research Associate (Adviser: Roni Sengupta)

- Developed an indoor scene relighting model using Diffusion techniques, allowing for precise light editing and relighting at desired locations. (CVPR 2025)
- Investigated a method of video relighting human faces according to the desired monitor light under any existing ambient light or moving face condition using Neural Style Transfer. (ECCV 2024)
- Developed a neural network to detect mismatches between monitor-emitted and face-reflected light in a monitor -webcam setup, aimed at identifying deep fake avatars or inattentive attendees. (CVPR 2024 Workshop)

Computer Vision Laboratory, Korea University Feb. 2022 – Jun. 2022
Research Associate (Adviser: Seungryong Kim)

- Proposed a novel framework, which is formulated in an auto-encoder architecture, extracts disentangled 3D attributes such as 3D shape, appearance, and camera pose from an image, and a high-quality image rendered from the attributes through disentangled generative Neural Radiance Fields.

WORKING EXPERIENCE

Sycros Jul. 2020 – Dec. 2020

Research and Development Intern

- Researched different techniques for EWS (Early Warning System) in larger scale systems. Focused primarily on deep learning algorithms that could detect anomalies in real-time systems.
- Utilized deep learning models to predict the behavior of server resources, as well as possible anomalies in the system. This allowed for more accurate and instantaneous anomaly detection.
- Developed a software that allows for automatic detection of plane deviations upon landing. Using ILS (Instrument Landing System), engineered an algorithm that detects the deviation of pitch, roll and yaw of incoming planes in airports.

Intelligence School, Republic of Korea Army Aug. 2018 - Mar. 2020

Computer Technician, Sergeant

- Assumed the role of computer program developer and squad leader as part of my national service.
- Developed a website designed for viewing and reading magazine articles. Moreover, implemented graphic animations for turning each page. Exploited WebGL and Javascript to successfully complete the project (awarded Army Major General Award).

HONORS AND AWARDS

President's List, Korea University, Feb. 2021
Dean's List, Korea University, Aug. 2018, Aug. 2020
Army Major General's Award, ROK Army Intelligence School, Dec. 2019
Semester High Honors, Korea University, 2017, 2018, 2020, 2021

TECHNICAL SKILLS

Language Proficiency: Fluent in English and Native in Korean
Programming Languages: Python, C++, C, Java, Javascript, HTML/CSS, R, SAS, LaTeX
Developer Tools: Anaconda, Jupyter Notebook, VS Code, Github, Eclipse, Linux
Technologies/Frameworks: PyTorch, Tensorflow, SckitLearn, SciPy, Numpy, Pandas, OpenGL, WebGL

REVIEWER

CVPR, ICCV, NeurIPS, SIGGRAPH, WACV