Youngchan Kim

+82-10-3909-2338
kyc9618@gmail.com
youngchan-k.github.io
youngchan-k
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Education

Pohang University of Science and Technology (POSTECH) Mar 2022 – Feb 2024
MS in Graduate School of Artificial Intelligence

Yonsei University Mar 2016 – Feb 2022
BS in Mathematics & Electrical and Electronic Engineering

Work Experience

Beeble AI Apr 2024 – Apr 2025
Machine Learning Engineer

[Research]
- Design, train, and improve inverse rendering foundation model to create relightable 3D assets from footage
- Research and optimize AI models (e.g. matting, depth estimation, camera tracking) for pipeline integration
- Build a synthetic data generation pipeline to render OLAT images, PBR textures, and depth maps for training

[Web & Product]
- Develop HDR light generation harmonized with background and post-processing features for 3D web editor
- Create Blender add-on that supports shot editing and cloud-based 3D asset libraries for virtual set creation

Publications

[Computer Vision & Computer Graphics]

[1] Spectral and Polarization Vision: Spectro-polarimetric Real-world Dataset
Yujin Jeon*, Eunsue Choi*, **Youngchan Kim**, Yunseong Moon, Khalid Omer, Felix Heide, Seung-Hwan Baek
CVPR, 2024 (highlight)

[2] Neural Spectro-polarimetric Fields
Youngchan Kim, Wonjoon Jin, Sunghyun Cho, Seung-Hwan Baek
SIGGRAPH Asia, 2023

[Recommendation System]

[1] Towards Minimally Domain-Dependent and Privacy-Preserving Architecture and Algorithms for Digital Me Services: EdNet and MIMIC-III Experiments
Kyoung Jun Lee, Baek Jeong, **Youngchan Kim**, Suhyeon Kim
HICSS, 2025

[2] AMPER(Aim-Measure-Predict-Evaluate-Recommend): The Pradigm of Digital Me
Kyoung Jun Lee, Baek Jeong, Yujeong Hwangbo, **Youngchan Kim**, Sungwon Bae, Taehoon Baek
ICEC, 2022

Projects

Minimally Domain-Dependent Privacy-Preserving Digital Me Algorithms

- General Digital Me algorithm to manage the individual's state and provide recommendations

GradDISN: Gradient-based Deep Implicit Surface Network for Detailed 3D Reconstruction

- Detailed 3D mesh reconstruction using an occupancy gradient-weighted loss function

Teaching Experience

Lecturer, Samsung Electronics DX (Digital Transformation) Training Apr 2024

- Deliver lectures on Python programming and Data Science with hands-on coding sessions

Teaching Assistant, POSCO AI Expert Training Oct 2022 / Jul 2023

- Conduct hands-on coding sessions on the Basics of Deep Learning and Computer Vision

Teaching Assistant, CSED700G Computational Imaging Spring 2023

- Supervise and organize the online project presentations on Computational Imaging

Skills

Languages Korean (Native), English (Conversational)

Programming & ML/DL Python, PyTorch, TensorFlow, OpenCV, NumPy, Matplotlib, C/C++, Linux, Docker

Graphics & Rendering Blender, Filament, Mitsuba 2/3, Three.js

Hardware Experience Machine Vision Camera (*Triton™ TRI051S-MC*), Hyperspectral Camera (*Cubert ULTRIS X20*), Liquid Crystal Tunable Filter (*Thorlabs KURIOS-XL1/M*)

Honors & Awards

2023 Reviewer for *Pacific Graphics 2023*

2021 Yonsei Startup Internship Scholarship

2019 National Technical Certificate – *Craftsman Information Processing*

2016 National Scholarship II (*Outstanding Academic Performance*)

2016 Merit-based Award and Scholarship (1st in the Department)