

Youngchan Kim

ML Engineer @ Beeble

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🎓 Youngchan Kim

I'm interested in integrating AI into digital content creation to enhance visual realism and streamline workflows, allowing users to efficiently generate high-quality visually appealing outputs.

🎓 Education

Pohang University of Science and Technology (POSTECH)

MSc in Graduate School of Artificial Intelligence

Mar. 2022 – Feb. 2024

Pohang, Korea

➤ Graduate student at Computer Graphics Lab (Advisor: Prof. Seung-Hwan Baek)

Yonsei University

BSc in Mathematics & Electrical and Electronic Engineering (Double Major)

Mar. 2016 – Feb. 2022

Seoul, Korea

💼 Work Experience

Beeble

ML Engineer

Apr. 2024 – Present

Seoul, Korea

- Contribute to optimizing the de-rendering algorithm for accurate PBR map extraction from a single image
- Develop a synthetic multi-human generation pipeline to render images and PBR maps with virtual light stage
- Improve the depth-to-normal reconstruction method for a perspective camera model using unprojection

Harex InfoTech

Research Engineer

Oct. 2021 – Dec. 2021

Seoul, Korea

- Develop a purely data-based Digital Me algorithm for real-time personalized user recommendation

EVAR

Software Engineer Intern

Jan. 2021 – Feb. 2021

Seongnam, Korea

- Develop a Bluetooth communication system to remotely control the mobile EV charger using smartphone

📄 Publications

- [1] **Spectral and Polarization Vision: Spectro-polarimetric Real-world Dataset** CVPR 2024
Yujin Jeon*, Eunsue Choi*, **Youngchan Kim**, Yunseong Moon, Khalid Omer, Felix Heide, Seung-Hwan Baek (highlight)
- [2] **Neural Spectro-polarimetric Fields** SIGGRAPH Asia 2023
Youngchan Kim, Wonjoon Jin, Sunghyun Cho, Seung-Hwan Baek
- [3] **AMPER(Aim-Measure-Predict-Evaluate-Recommend): The Paradigm of Digital Me** ICEC 2022
Kyoung Jun Lee, Baek Jeong, Yujeong Hwangbo, **Youngchan Kim**, Sungwon Bae, Taehoon Baek

Teaching Experience

Lecturer, Samsung Electronics DX(Digital Transformation) Training

Apr. 2024

- › Deliver lectures on *Python programming and Data Science* for newly hired experienced employees

Teaching Assistant, CSED700G Computational Imaging

Spring 2023

- › Supervise the student projects related to *Computational Imaging*

Teaching Assistant, POSCO AI Expert Training

Oct. 2022 / Jul. 2023

- › Conduct coding sessions for the *Basic of Deep Learning and Computer Vision*

Projects

Multi-view 3D Reconstruction with Gradient-based Loss

Feb. 2021 – Aug. 2021

- › Enhance the reconstruction quality of *DISN* algorithm by introducing occupancy difference at each point
- › Capstone Design project (Spring 2021) (Advisor: Prof. Yoonsik Choe)

Silk Microneedle for Continuous Glucose Sensing

Jul. 2020 – Dec. 2020

- › Fabricate a biocompatible microneedle glucose sensor combined with GF-monomer
- › Capstone Design project (Fall 2020) (Advisor: Prof. Ki Jun Yu)

Skills

Language Korean (Native), English (Conversational)

Programming Python, Pytorch, Tensorflow, C/C++, MATLAB, Mitsuba 2/3, Linux, Docker

Experiments with Hardware Machine Vision Camera (*LUCID Vision Labs TRIO51S-MC*), Hyperspectral Camera (*Cubert ULTRIS X20*), Liquid Crystal Tunable Filter (*Thorlabs KURIOS-XL1/M*)