

Yonghee Oh

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EDUCATION

Pohang University of Science and Technology (POSTECH)

M.S. in Computer Science and Engineering

Pohang, Korea

2025.03 – Present

- Advisor: Prof. Seung-Hwan Baek
- Research interests: polarimetric imaging, image sensor processing and physically based rendering

Chung-Ang University

B.S. in Computer Science and Engineering

Seoul, Korea

2019.03 – 2025.02

- Advisor: Prof. Junseok Kwon
- GPA: 4.36/4.5 (Major: 4.5/4.5)

PUBLICATIONS

Conference Papers

- **Y. Oh***, R. Maeda*, Y. Moon, S.-H. Baek, “Real-world Polarimetric Environment Map Dataset,” conditionally accepted to *ACM SIGGRAPH Asia 2026*.
- T. Dobrički, **Y. Oh**, H. Ko, T. Kim, D. Kim, B.-W. Hong, “Incremental Learning for Optical Flow,” *ICTC 2022*, Jeju, Korea.
- T. Dobrički, **Y. Oh**, H. Ko, T. Kim, D. Kim, B.-W. Hong, “Comparison of Optical Flow Image Preprocessing Options for State-of-the-Art Deep Learning Models,” *ICTC 2022*, Jeju, Korea.
- T. Lee, **Y. Oh**, J. Choe, K. Yoon, “The System for Recommending Paintings Depending on the User’s Emotion,” *ICICT 2020*, pp. 156–158, Jeju, Korea.

RESEARCH EXPERIENCE

Vision and Learning Lab @ Seoul National University

Seoul, Korea

Research Intern – Advisor: Prof. Gunhee Kim

2025.07 – 2025.08

- **Video Understanding:** Developed a video highlight detection method using the DMD dataset.

Visual AI Lab @ KAIST

Daejeon, Korea

Research Intern – Advisor: Prof. Minhyuk Sung

2024.01 – 2024.02

- **Panorama Generation:** Investigated HDR panorama generation using diffusion priors.

Computer Vision and Augmented Reality Lab @ Chung-Ang University

Seoul, Korea

Research Intern – Advisor: Prof. Hyun-Ki Hong

2022.09 – 2023.09

- **Inverse Rendering:** Investigated outdoor illumination estimation using intrinsic image decomposition.

Image Lab @ Chung-Ang University

Seoul, Korea

Research Intern – Advisor: Prof. Byung-Woo Hong

2022.05 – 2022.08

- **Optical Flow:** Evaluated image preprocessing strategies for deep-learning-based optical flow estimation.

Computer Graphics Lab @ Chung-Ang University

Seoul, Korea

Research Intern – Advisors: Prof. Kyunghyun Yoon and Prof. Sanghyun Seo

2020.03 – 2020.09

- **Affective Computing:** Developed a painting recommendation system based on user emotion estimation.

PROJECTS

Air Instrument using On-device AI <i>Progressed in Capstone Design</i>	CAU 2024.02 - 2024.08
Pet disease and BCS Care <i>Progressed in Capstone Design</i>	CAU 2023.08 - 2023.12
Development of the Cerebral Aneurysm Detectron using Brain DSA Image <i>Progressed in artificial intelligence conference(CUAI)</i>	CUAI @ CAU 2023.06 - 2023.08
Density Estimation based on YOLOv5 <i>Progressed in artificial intelligence conference(CUAI)</i>	CUAI @ CAU 2022.12 - 2023.02
Development Voice Recognition PC Secretary <i>Progressed in Da Vinci SW contest(SW TECH-FAIR)</i>	SW TECH-FAIR @ CAU 2019.06 - 2019.10

HONORS & SCHOLARSHIP

Sungok Scholarship Foundation • Selected as a recipient of Sungok Scholarship Foundation, Full tuition during undergraduate student.	2023.03 - 2025.02
Dongwon Scholarship Foundation • Selected as a recipient of Servant Leadership of Dongwon Scholarship Foundation, received \$3,840 .	2023.03 - 2024.08
The Rights Hands Scholarship • Selected as a recipient of the Rights Hands Scholarship(NGO), \$384 every month during undergraduate student.	2023.02 - 2024.08
Iduk I&C • Selected as a recipient of Iduk I&C Scholarship(Allerman), \$3,840 .	2022 Fall
Undergraduate Fellowship • Department Honor Scholarship <i>Dean's List (Top 1), 30%-tuition during 1 semester</i> • Department Secondary Honor Scholarship <i>Dean's List (Top 10%), 30%-tuition during 1 semester</i> • SW Specialization Scholarship <i>Research Fellowship funded by Davinci Software Institute at Chung-Ang Univ.</i> • University Innovation Support Project Scholarship <i>Research Fellowship funded by University Innovation Support Project Committee(UISPC)</i>	2023 Fall, 2024 Spring 2019 Fall, 2023 Spring 2020 Spring - 2020 Fall, 2022.Spring- 2022.Summer 2023 Summer
Award • The Grand Award (1st Grade) <i>CAU LINC 3.0, Chung-Ang Univ.</i> • Paper Award (3rd Grade) <i>Digital Contents Society(DCS).</i> • Paper Award (3rd Grade) <i>artificial intelligence conference(CUAI), Chung-Ang Univ.</i> • Paper Award (3rd Grade) <i>artificial intelligence conference(CUAI), Chung-Ang Univ.</i> • Excellence Prize in Project (3rd Grade) <i>Davinci Software Institute, Chung-Ang Univ.</i>	2023.12 2023.11 2023.08 2023.02 2019.10

SKILLS

Programming

- Proficient in: Python
- Familiar with: Java, C++, C

Tools

- Software: Blender (Proficient) etc.
- Framework: Mitsuba3 (Proficient), PyTorch (Proficient), OpenCV, Open3D OpenGL etc.