CHANGWOON CHOI

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Education

Seoul National University	Electrical & Computer Engineering	M.S.&Ph.D., 2020.9 -
Seoul National University	Electrical & Computer Engineering	B.S., *summa cum laude*, 2014 - 2020
Seoul Science High School	-	2011 - 2013

Publications

1. Jaeah Lee, **Changwoon Choi**, Young Min Kim, and Jaesik Park, *Recovering Dynamic 3D Sketches from Videos*, in *CVPR* (2025).
2. Gwangtak Bae*, **Changwoon Choi***, Hyeongjun Heo, Sang Min Kim, and Young Min Kim, *I2-SLAM: Inverting Imaging Process for Robust Photorealistic Dense SLAM*, in *ECCV* (2024).
3. **Changwoon Choi**, Jaeah Lee, Jaesik Park, and Young Min Kim, *3Doodle: Compact Abstraction of Objects with 3D Strokes*, in *SIGGRAPH (ACM TOG)* (2024).
4. Sang Won Im*, Dongsu Zhang*, Jeong Hyun Han, Ryeong Myeong Kim, **Changwoon Choi**, Young Min Kim**, and Ki Tae Nam**, *Investigating Chiral Morphogenesis of Gold Using Generative Cellular Automata*, in *Nature Materials* (2024).
5. **Changwoon Choi***, Juhyeon Kim*, and Young Min Kim, *IBL-NeRF: Image-Based Lighting Formulation of Neural Radiance Fields*, in *Pacific Graphics (Computer Graphics Forum)* (2023).
6. Sang Min Kim, **Changwoon Choi**, Hyeongjun Heo, and Young Min Kim, *Color Transform Module for Robust Novel View Synthesis*, in *Pacific Graphics (Computer Graphics Forum)* (2023).
7. Junho Kim, **Changwoon Choi**, Hojun Jang, and Young Min Kim, *LDL: Line Distance Functions for Panoramic Localization*, in *ICCV* (2023).
8. **Changwoon Choi**, Sang Min Kim, and Young Min Kim, *Balanced Spherical Grid for Egocentric View Synthesis*, in *CVPR* (2023).
9. Junho Kim, Hojun Jang, **Changwoon Choi**, and Young Min Kim, *CPO: Change Robust Panorama to Point Cloud Localization*, in *ECCV* (2022).
10. Dongsu Zhang, **Changwoon Choi**, Inbum Park, and Young Min Kim, *Probabilistic Implicit Scene Completion*, in *ICLR* (2022, *Spotlight*).
11. Junho Kim, **Changwoon Choi**, Hojun Jang, and Young Min Kim, *PICCOLO: Point Cloud-Centric Omnidirectional Localization*, in *ICCV* (2021).
12. Dongsu Zhang, **Changwoon Choi**, Jeonghwan Kim, and Young Min Kim, *Learning to Generate 3D Shapes with Generative Cellular Automata*, in *ICLR* (2021).

(**Equally contributed.*)

Experiences

Research Scientist Intern	Meta Reality Labs, London	2025.06-2025.12
Research Scientist Intern	NAVER Cloud, Seoul	2023.12-2024.03
Visiting Researcher	UCSD, hosted by Hao Su	2023.05-2023.12
Conference Reviewer	SIGGRAPH, SIGGRAPH Asia, Pacific Graphics CVPR, ICCV, ECCV, ACCV, 3DV, NeurIPS	
Journal Reviewer	ACM TOG, The Journal of Supercomputing	

Invited Talks

"Computer Vision, Computer Graphics, and AI" @ Seoul Science High School	2025.04.
"3Doodle" @ Korea Computer Graphics Society (KCGS)	2024.07.
"Towards Robust Indoor Visual Localization with Omnidirectional Camera" @ 42dot	2022.05.

Honors and Awards

Best poster presentation award (IPIU 2025)	2025
Young researcher award (SNU INMC)	2025
Brain Korea 21 Ph.D. fellowship (NRF)	2024 spring
Ph.D. Study-abroad program scholarship (SNU OIA, $10,000)	2023 spring
University outstanding T.A. award	2022 spring
Samsung humantech paper award, Honorable mention ($2,000)	2021
Merit-based scholarship (SNU, Full-Funding)	2015 - 2020
Funding for gifted students (science), Woongjin Foundation	2011 - 2012

Teaching Experience

Basic Calculus 1 (Tutor)	2015, 2016, 2018, 2020 spring
Basic Calculus 2 (Tutor)	2018 fall
Basic Physics 1 (Tutor)	2015, 2016, 2019 spring
Basic Physics 2 (Tutor)	2015, 2019 fall
Programming Methodology (Tutor)	2019 fall
Engineering Mathematics 2 (Tutor)	2019 fall, 2021 spring
Signals and Systems (Tutor)	2020 spring
Theory and Lab of IoT, AI, and Big Data (T.A.)	2019 fall, 2020 spring
Signals and Systems (T.A.)	2021 spring
3D Computer Vision Track for AI Experts (Samsung) (T.A.)	2021, 2022 summer
Introduction to Random Variables and Processes (T.A.)	2022 spring
Physics Lab (T.A.)	2022 fall