

CHELHWON KIM

cheolhwon.kim@gmail.com | [LinkedIn](#) | [Google Scholar](#) | [Personal Website](#) | [GitHub](#)

Computer Vision Researcher with 10 years of industry R&D experience at the intersection of 3D geometric vision, generative modeling, and applied perception for human-centered systems — spanning reconstruction and localization, digital human / 3DCG synthesis, and AR / spatial computing. Looking to bring this expertise to a collaborative research team advancing the state of the art in generative AI and 3D vision.

EXPERIENCE

Associate Staff Research Scientist — SONY R&D Center US Lab *Oct 2021 – Present*

San Jose, California

- Research on 3DCG digital human creation including high-res image generation, optimizing 3D reconstruction processes, and developing innovative capture and modeling techniques to enhance efficiency and realism in digital content creation.

Computer Vision Engineer — Leia Inc. *Aug 2020 – Oct 2021*

Palo Alto, California

- Designed and implemented computer vision models for content classification and depth enhancement.

Senior Research Scientist — FX (Fuji Xerox) Palo Alto Lab *Apr 2016 – Jun 2020*

Palo Alto, California

- Research on indoor localization for people-tracking, image-to-audio translation system, a tabletop telepresence system with high-resolution document capture, and web-based remote assistance systems for smartphones and AR glasses.

Research Intern — Nokia Research Center *Jun 2013 – Sep 2013*

Berkeley, California

- Implemented and parallelized SLIC image segmentation on the Movidius platform, achieving a 4x speedup.

Research Engineer — Intelligent Systems Research Center *Jan 2009 – May 2010*

South Korea

- Research on recognition and pose estimation of 3D objects for service robots.

Research Engineer — Nexteye Machine Vision *Mar 2005 – May 2008*

South Korea

- Designed and implemented machine vision systems for classifying manufacturing defects.
- Owned the full lifecycle, from algorithm development to deployment and optimization on the factory line.

EDUCATION

Ph.D. in Electrical Engineering — University of California, Santa Cruz. *Aug 2010 – Dec 2016*

Santa Cruz, California

Thesis: Indoor Manhattan Spatial Layout Recovery from Monocular Videos (line-based SfM)

M.S. in Computer Engineering — Sungkyunkwan University *Mar 2003 – Feb 2005*

Suwon, South Korea

Thesis: Structured light based depth edge detection for object shape recovery

B.S. in Information and Communication Engineering — Sungkyunkwan University *Mar 1999 – Feb 2003*

Suwon, South Korea

GPA 4.12, Rank 5/367

SKILLS

Computer Vision & 3D: 3D Reconstruction & SfM, Indoor Localization, Camera Calibration, Image Segmentation

Machine Learning: Deep Learning, Generative Modeling (GANs, Diffusion Models)

Programming: Python, C++, PyTorch, TensorFlow