Sungjin Cheong

https://sjcheong21.github.io/

Education

- **University of Wisconsin-Madison** — *Aug. 2025 - Current*
  Ph.D. in Computer Sciences *(Advisor: Mohit Gupta)* — Wisconsin, USA
- **Korea Advanced Institute of Science and Technology (KAIST)** — *Sep. 2021 - Aug. 2023*
  M.S. in Mechanical Engineering — Daejon, Republic of Korea
- **Yonsei University** — *Mar. 2014 - Aug. 2021*
  B.S. in Mechanical Engineering — Seoul, Republic of Korea
  - Military Service (Republic of Korea Army, 2015 - 2017)

Research Interests

- Light Detection and Ranging (LiDAR), Time-of-Flight (ToF) Sensors
- Computational Imaging, Computer Vision, Statistical Signal Processing

Research & Work Experience

- **University of Wisconsin-Madison** — *Aug. 2025 - Current*
  Graduate Teaching Assistantship — Wisconsin, USA
  - TA: Introduction to Computer Vision *(Instructor: Mohit Gupta)*
- **LG Innotek Inc.** — *Aug. 2023 - Aug. 2025*
  LiDAR Software Researcher — Seoul, Republic of Korea
  - Development of dToF SPAD/SiPM LiDAR DSP algorithms
  - Development of LiDAR image processing algorithms
- **Korea Advanced Institute of Science and Technology (KAIST)** — *Sep. 2021 - Aug. 2023*
  Graduate Research Assistant | Human-Machine Interaction Lab — Daejon, Republic of Korea
  - Development of infrared remote target detection methods based on deep learning
  - Development of AMCW iToF LiDAR platforms

Publications & Conferences

J=Journal, IC=International Conference, DC = Domestic Conference

2024 **[J.1] Cheong, S. J.**, Jung, W., Lim, Y. S., and Park, Y. H. **Thermal-Infrared Remote-Target Detection System for Maritime Rescue Using 3-D Game-Based Data Augmentation With GAN**. In **IEEE Transactions on Geoscience and Remote Sensing (TGRS)**. **(SCI, IF: 8.6)**

[IC.1] Cheong, S. J., Ha, J. S. **LiDAR Blooming Artifacts Estimation Method Induced by Retro-Reflectance With Synthetic Data Modeling and Deep Learning**. In **IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia).** (Oral)

Skills

- **Programming Languages:** Python, C/C++, MATLAB, LabVIEW
- **Framework and Library:** Pytorch, OpenCV, Open3d, MMDetection3D, ROS, Git and many others
- **Visualization Tools:** CloudCompare, MeshLab, Weights and Biases
- **Language Skills:** Korean (Native), English (Proficient) - *IELTS Academic Overall: 7.5 / 9.0 (L: 8.5 / R: 8.0 / W: 6.5 / S: 7.0)*

Educational Travel

- **ILSC Toronto English Language School** — *Mar. 2019 - Dec. 2019*
  General and Academic English Courses — Toronto, Canada
- **Pines International Academy** — *Jan. 2019 - Mar. 2019*
  IELTS Academic Program — Baguio, Philippines