INCHUL KIM (Incheol Kim)

KAIST (Korea Advanced Institute of Science and Technology)
School of Computing, E3-1, Rm. 2418
291 Daehak-ro, Yuseong-gu, Daejeon, Korea 34141

kimic89@gmail.com | Personal Homepage | ORCID
+82 (0)42-350-7864 | Google Scholar | ACM

APPOINTMENTS

2021–2022	PTERS company (currently ALOGIC), South Korea, Software Engineer – Front-end and back-end web development
2017–2018	**Graphics and Imaging Lab**, Universidad de Zaragoza, Spain, Research Assistant – Research on reducing visual discomfort in virtual reality video playbacks
2010–2012	Republic of Korea Air Force (compulsory military service)

EDUCATION

2022–Present	**KAIST, South Korea, PhD Candidate in Computer Science** – Supervisor: **Prof. Min H. Kim**
2015–2017	**KAIST, South Korea, MSc in Computer Science** – Supervisor: **Prof. Min H. Kim** – Thesis: Dehazing using Non-Local Regularization with Iso-Depth Neighbor-Fields
2009–2015	**Hanyang University, South Korea, BSc in Computer Science** – Summa Cum Laude

PROJECTS

2024–Present	**Hyperspectral Video Camera**, National Research Foundation of Korea (NRF), South Korea – Developing a real-time hyperspectral video capture and reconstruction system
2022–2024	**Intra-oral Scanner**, Dentium, South Korea – Research on a robust, real-time 3D reconstruction using an RGBD camera
2016–2017	**High Dynamic Range Video**, Electronics and Telecommunications Research Institute (ETRI), South Korea – Research on a next-generation codec for high dynamic range video compression

AWARDS/FELLOWSHIPS

- National Scholarship: Full Tuition for Graduate Study, Korean Government (2022–)
- **KAIST Breakthroughs, KAIST, 2017**
  – Compact hyperspectral imaging at low cost (presented at ACM SIGGRAPH Asia 2017)
- National Scholarship: Full Tuition for Graduate Study, Korean Government (2015–2017)
- National Science and Engineering Undergraduate Scholarship, Korean Government (2013–2014)

ACADEMIC SERVICE

Reviewer:

- IEEE Computer Vision and Pattern Recognition (**CVPR**) 2024, 2025
- IEEE Transactions on Image Processing (**TIP**) 2024
- IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**) 2024
- IEEE Transactions on Visualization and Computer Graphics (**TVCG**) 2024
- Optics Express (**OE**) 2024

PUBLICATIONS

Refereed International Journals:

[J1] Ana Serrano, **Incheol Kim**, Zhili Chen, Stephen DiVerdi, Diego Gutierrez, Aaron Hertzmann, and Belén Masiá (2019), "**Motion Parallax for 360° RGBD Video**," *IEEE Transactions on Visualization and Computer Graphics (**TVCG**)*, 54(5):1817–1827, 2019. **[project]** **[pdf]**

[J2] Seung-Hwan Baek, **Incheol Kim**, Diego Gutierrez, and Min H. Kim (2017), "**Compact Single-Shot Hyperspectral Imaging Using a Prism**," *ACM Transactions on Graphics (**TOG**) (presented at **SIGGRAPH Asia** 2017)*, 36(6):217:1–12, 2017. **[project]** **[pdf]**

Peer-reviewed International Conferences:

[C1] Kiseok Choi, **Inchul Kim**, Dongyoung Choi, Julio Marco, Diego Gutierrez, and Min H. Kim (2023), "**Self-Calibrating, Fully Differentiable NLOS Inverse Rendering**," *Proceedings of ACM **SIGGRAPH Asia** 2023*, Sydney, Australia, Dec. 12–15, 2023. **[project]** **[pdf]**

[C2] Donggun Kim, Hyeonjoong Jang, **Inchul Kim**, and Min H. Kim (2023), "**Spatio-Focal Bidirectional Disparity Estimation from a Dual-Pixel Image**," *IEEE Computer Vision and Pattern Recognition (**CVPR**) 2023*, Vancouver, Canada, Jun. 18–22, 2023. **[project]** **[pdf]**

[C3] **Incheol Kim** and Min H. Kim (2019), "**Non-local Haze Propagation with an Iso-Depth Prior**," *Computer Vision, Imaging and Computer Graphics – Theory and Applications*, pp 213–238, 2019. **[project]** **[pdf]**

[C4] **Incheol Kim** and Min H. Kim (2017), "**Dehazing using Non-local Regularization with Iso-depth Neighbor-Fields**," *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP 2017) – Volume 4: VISAPP*, pages 77–88, 2017. **[project]** **[pdf]**

Patents:

[1] Min Hyuk Kim, Seung-Hwan Baek, and **Incheol Kim**, "**Method for reconstructing hyperspectral image using prism and system therefor**," **US Patent**: US20190096044A1, published in Mar. 28, 2019. **[link]**

[2] Min Hyuk Kim, Seung-Hwan Baek, and **Incheol Kim**, "**Method and system for reconstructing hyperspectral image by using prism**," **PCT Patent**: WO2019059632A1, published in Mar. 28, 2019. **[link]**

[3] Min Hyuk Kim, Seung-Hwan Baek, and **Incheol Kim**, "**Method for reconstructing hyperspectral image using prism and system therefor**," **EU Patent**: EP3460427A1, published in Mar. 27, 2019. **[link]**

REFERENCES

Prof. Min H. Kim
KAIST
School of Computing
E3-1, Rm. 2403, 291 Daehak-ro, Yuseong-gu
Daejeon, Korea 34141
+82 (0)42-350-3564
minhkim@vclab.kaist.ac.kr
Homepage