Jae Won **Cho**

COMPUTER VISION RESEARCHER · ELECTRICAL ENGINEER

(+82) 10-3242-2485 | chojw@kaist.ac.kr | chojw | chojw

Education

Korea Advanced Institute for Science and Technology (KAIST) *Daejeon, South Korea*
PH.D IN ELECTRICAL ENGINEERING *Aug 2018 - Present*
Supervised by Prof. In So Kweon

Georgia Institute of Technology *Atlanta, GA, USA*
B.S. IN ELECTRICAL ENGINEERING *Aug 2014 - May 2018*
GPA: 3.5/4.0 (High Honor)

Research Interest

My current research interests lie in the general areas of computer vision and deep learning with a particular focus Vision & Language Tasks such as Visual Question Answering and Active Learning.

Experience

KAIST, Robotics and Computer Vision (RCV) Lab *Daejeon, South Korea*
RESEARCH ASSISTANT *Aug 2018 - Present*
- Research on Computer Vision: VQA, Active Learning

KAIST, Robotics and Computer Vision (RCV) Lab *Daejeon, South Korea*
RESEARCH INTERN *Jun 2017 - Aug 2017*
- Research on fine-grained action recognition classification using Deep Learning

KAIST, Robotics and Computer Vision (RCV) Lab *Daejeon, South Korea*
RESEARCH INTERN *Jun 2016 - Aug 2016*
- Research on reconstruction of 3D images using traditional computer vision techniques

Projects

Object-centric Scene Understanding for Video Turing Test *South Korea*
KOREA MINISTRY OF SCIENCE AND ICT *Aug 2018 - Present*
Project Member/Lead: Developing a rich object-centric scene understanding framework for Video Turing Test based on Video Question Answering.

Biometric Door Lock *Atlanta, GA, USA*
STANLEY BLACK & DECKER *Oct 2017 - May 2018*
Project Lead: Tasked with developing a WiFi channel state information based gait recognition for classification.

Publications

- **Jae Won Cho**, Dong-Jin Kim, Hyeonggon Ryu, In So Kweon, "Generative Bias for Robust Visual Question Answering." *IEEE International Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2023. (*28th HumanTech Paper Award, Bronze Prize*)

- Youngjoon Jang, Youngtaek Oh, **Jae Won Cho**, Myungchul Kim, Dong-Jin Kim, In So Kweon, Joon Son Chung, "Self-Sufficient Framework for Continuous Sign Language Recognition." *International Conference on Acoustics, Speech, and Signal Processing* (**ICASSP**), 2023.

- Youngjoon Jang, Youngtaek Oh, **Jae Won Cho**, Dong-Jin Kim, Joon Son Chung, In So Kweon, "Signing Outside the Studio: Benchmarking Background Robustness for Continuous Sign Language Recognition." *British Machine Vision Conference* (**BMVC**), 2022.

- **Jae Won Cho***, Dong-Jin Kim, Yunjae Jung, In So Kweon, "MCDAL: Maximum Classifier Discrepancy for Active Learning." *IEEE Transactions on Neural Networks and Learning Systems* (**TNNLS**), 2022. (* equal contribution)

- Dong-Jin Kim*, **Jae Won Cho***, Jinsoo Choi, Yunjae Jung, In So Kweon, "Single-Modal Entropy based Active Learning for Visual Question Answering." *British Machine Vision Conference* (**BMVC**), 2021. (* equal contribution)

- Inkyu Shin, Dong-Jin Kim, **Jae Won Cho**, Sanghyun Woo, Kwanyong Park, In So Kweon, "LabOR: Labeling Only if Required for Domain Adaptive Semantic Segmentation." *IEEE International Conference on Computer Vision* (**ICCV**), 2021 [**Oral**](*acceptance rate 3%*).

- Antyanta Bangunharcana, **Jae Won Cho**, Seokju Lee, In So Kweon, Kyung-Soo Kim, Soohyun Kim, "Correlate-and-Excite: Real-Time Stereo Matching via Guided Cost Volume Excitation." *IEEE/RSJ International Conference on Intelligent Robots and Systems* (**IROS**), 2021.

- **Jae Won Cho**, Dong-Jin Kim, Jinsoo Choi, Yunjae Jung, In So Kweon, "Dealing with Missing Modalities in the Visual Question Answer-Difference Prediction Task through Knowledge Distillation." *CVPR Multimodal Learning and Applications Workshop* (**CVPRW**), 2021

- Dawit Mureja Argaw, Junsik Kim, Francois Rameau, **Jae Won Cho**, In So Kweon. "Optical Flow Estimation from a Single Motion-blurred Image." *Thirty-Fifth AAAI Conference on Artificial Intelligence* (**AAAI**), 2021.

Honors & Awards

2022	**28th HumanTech Paper Award, Bronze Prize**, Samsung Electronics Co. Ltd ($5,000)	*South Korea*
2018-Present	**KAIST Scholarship**, Full Scholarship for Ph.D Program	*KAIST, South Korea*
2018	**Eta Kappa Nu (HKN), Beta Mu Chapter**, Lifetime Membership	*Atlanta, GA, USA*
2018	**High Honor**, Georgia Institute of Technology Electrical Engineering	*Atlanta, GA, USA*
2017	**Georgia Tech Faculty Honors**, Perfect GPA Honors (Spring 2017)	*Atlanta, GA, USA*
2014, 2015, 2017	**Georgia Tech Dean's List**, (Fall 2017, Spring 2015, Fall 2014)	*Atlanta, GA, USA*
2017-2018	**Scholarship of In-State- Tuition Waiver ($10,000 USD)**, Awarded based on GPA and need	*Atlanta, GA, USA*

Skills

Programming Languages:	Python, Matlab, C, LaTeX, VHDL
Deep Learning	PyTorch, Caffe, TensorFlow, C3D
Languages	English (Native), Korean (Fluent), Chinese (Basic)
Miscellaneous	Autodesk Inventor, Solidworks, Microsoft Office, PSpice, LTspice, Matchcad, Multisim, ORCAD, Allegro.

References

Prof. In So Kweon

School of Electrical Engineering, KAIST

Email: iskweon77@kaist.ac.kr