Sumin Hong

shong6@nd.edu | Website: *https://www.suminhong.me* | Notre Dame, IN

INTERESTS

Human-Computer Interaction, Applied ML/AI, AI-powered Creativity Support Tool

EDUCATION

University of Notre Dame   Notre Dame, IN
Ph.D, Computer Science and Engineering   *Aug. 2024 – (May. 2029)*
Advisor: Dr. Toby Jia-Jun Li

Northumbria University   London, UK
B.S, Information Technology Management (∗Dual Degree)   *Mar. 2021 – Feb. 2024*
Honors: First-class

Seoul National University of Science and Technology   Seoul, KR
B.S, Information Technology Management   *Mar. 2017 – Feb. 2024*
Honors: Summa Cum Laude

EXPERIENCE

Lucid Dream   Seoul, KR
Applied ML/AI Engineer   *Nov. 2023 – Feb. 2024*
Project: Anomaly detection for Rehabilitating children with Developmental disabilities

KAIST Interaction Lab (KIXLAB)   Daejeon, KR
Research Intern   *Jun. 2023 – Feb. 2024*
Advisor: Dr. Juho Kim
Research area: Creativity support tool for Visual designers, Efficiency-enhancing system for Webtoon artists

UNIST Vision and Learning Lab (UVLL)   Ulsan, KR
Research Intern   *Jan. 2023 – Jun. 2023*
Advisor: Dr. Seungryul Baek
Research area: Class-incremental object detection

Interaction Lab (IXLAB)   Seoul, KR
Research Intern   *Jun. 2021 – Dec. 2022*
Advisor: Dr. Jin-woo Jeong
Research area: Facial expression recognition, Gaze visualization in Online learning, Object detection

PUBLICATIONS

Conference and Journal

CreativeConnect: Supporting Reference Recombination for Graphic Design Ideation with Generative AI
Daeun Choi, **Sumin Hong**, JeongEun Park, John Jun Young Chung, Juho Kim
CHI 2024: ACM Conference on Human Factors in Computing Systems

Class-wise Buffer Management for Incremental Object Detection: Effective Buffer Training Strategy
Junsu Kim, **Sumin Hong,** Chanwoo Kim, Jihyeon Kim, Yihalem Yimolal Tiruneh, Jeongwan On, Jihyun Song, Sunhwa Choi, Seungryul Baek
ICASSP 2024: IEEE International Conference on Acoustics, Speech and Signal Processing

Automatic Examination of Condition of Used Books with YOLO-based Object Detection Framework
Sumin Hong, Jin-woo Jeong
Computer Systems Science and Engineering, 47(2), 1611-1632, 2023 (JIF=4.397)

Workshop and Poster

An Effective Buffer Training Strategy for Class-Incremental Object Detection
Junsu Kim, **Sumin Hong,** Chanwoo Kim, Hoseong Cho, Yihalem Yimolal Tiruneh, Jihyeon Kim, Eunseo Kim, Jihyun Song, Sunhwa Choi, Seungryul Baek
CVPR 2023 Workshop on Continual Learning in Computer Vision: IEEE/CVF Conference on Computer Vision and Pattern Recognition

Ensemble of Multi-task Learning Networks for Facial Expression Recognition In-the-Wild with Learning from Synthetic Data
Jae-yeop Jeong[1], Young-gi Hong[1], **Sumin Hong**[1], Jiyeon Oh[1], Jin-woo Jeong
ECCV 2023 4th Workshop on Affective Behavior Analysis in-the-Wild: IEEE/CVF European Conference on Computer Vision

Visualizing Instructor's Gaze Information for Online Video-based Learning: Preliminary Study
Daun Kim[1], Jae-yeop Jeong[1], **Sumin Hong,** Namsub Kim, Jin-woo Jeong
ETRA 2022 Workshop on Eye Tracking in Learning and Education: ACM Symposium on Eye Tracking Research and Applications

HONORS AND AWARDS	**Graduate Best Award**	
	Seoul National University of Science and Technology	*Dec.2023*
	Full Tuition Scholarship	
	merit-based	Seoul National University of Science and Technology	*2017, 2023*
	SeAH Haiam Scholarship	
	given to selected student	SeAH Corporate	*2023*
	3rd place in Learning from Synthesis Data Challenge	
	4th Workshop on Affective Behavior Analysis in-the-wild	*Jul.2022*
	Outstanding Paper Award	
	Winter Annual Conference of Korean Institute of Communications and Information Sciences	*Jan. 2022*
	Moksan Scholarship	
	given to selected student	Daewon Kangup Co.Ltd.	*2020*
PROJECTS	**EmoFeed: Presentation Feedback System with Affective Computing and Generative AI**	
	Graduate Project	*Jan. 2023 – Nov. 2023*
	Presentation feedback system with Real-time virtual avatars and Dashboard	
	Incremental Learning for UP Appliance Data Coverage Expansion	
	LG Electronics	*Jan. 2023 – Jun. 2023*
	Object detection with Class-incremental feature retrieving strategy for Home appliances	
	AI-powered Event Recognition Technology in Mobile 360 Video to expand Social Safety Nets	
	Korean Foundation for Women In Science, Engineering, and Technology	*Apr. 2022 – Oct. 2022*
	Hazardous Sound source and Saliency Visualization in 360 video	
TEACHING EXPERIENCE	**Teaching Assistant**	
	ITM146091: Programming Language	Seoul National University of Science and Technology	*Fall 2020*