

JiEun Kim

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Biography: I received my M.S and B.S in Computer Engineering from Keimyung University, where I was advised by Prof. Deokwoo Lee.

Education

Mar.2017 ~ Feb.2021 B.S., Computer Engineering
Keimyung University, Deagu

Mar. 2021~ Feb.2023 M.S., Computer Engineering
Keimyung University, Deagu

Advisor: Deokwoo Lee

Thesis : Deformable convolution network based visual language model

Mar. 2023~ Dec.2023 Ph.D., Information System
Yonsei University, Seoul

Research Interests

- Computer vision
- Muti Modal
- Deep learning

Conferences and Journal

Domestic

- **Jieun Kim, Jisu Kim, Deokwoo Lee*, Facial expression recognition using deep neural network model and face image alignment network**, Korea Electronics Engineering Association Autumn Conference 2021, Songdo Convention Center, Incheon, Korea, Nov. 2021 (Oral)
- **Jieun Kim, Deokwoo Lee*, Facial expression recognition using spatial variation network and convolutional neural network**, IPIU 2022, Feb. 2022.
- **Jieun Kim, Deokwoo Lee *, Information-based Q&A system based on visual information using attention mechanism using image captions**, Spring Conference of the Korean Multimedia Society, May 13-14, 2022, Busan, Korea (best paper)
- **Jieun Kim, Deokwoo Lee *, Visual Question Answering Using Deformable Convolutional Networks**, Korea Electronics Engineering Association (KEEA) Fall Conference 2022, Gonjiam Resort, Gwangju, Gyeonggi-do, Korea., Nov.25-26, 2022.
- **Jieun Kim, Deokwoo Lee *, Comparison of contour detection results according to noise type and noise removal method**, Journal of the Korean Multimedia Society, Vol. 26, No. 4, pp. 533-541, 2023

International

- **Jieun Kim, Eung-Joo Lee and Deokwoo Lee***, **Recognition of facial expression using spatial transformation network and convolutional neural network**, Proc. SPIE 12101, Pattern Recognition and Tracking XXXIII, 121010J (27 May 2022)
- **Jieun Kim, Ju O Kim, Seungwan Je and Deokwoo Lee***, **Facial Expression Recognition using Visual Transformer with Histogram of Oriented Gradients**, Electronic Imaging 2023 (Image Processing: Algorithms and Systems XXI Preliminary Program), Jan. 19. 2023. (oral presentation).
- **Ju O Kim, Jieun Kim and Deokwoo Lee***, **Calibrating a Three-Viewpoints Thermal Camera with Few Correspondences**, Journal of Signal Processing Systems (SCIE, IF 1.817), Vol. 7, Jan. 2023.
- **Jieun Kim and Deokwoo Lee***, **Facial Expression Recognition Robust to Occlusion and to Intra-Similarity Problem using Relevant Subsampling**, Sensors, 23(5), 2619, pp. 1-15.
- **Jieun Kim and Deokwoo Lee***, **Estimation of a Relative Camera Orientation with Few Correspondences using Unsynchronized Viewpoints**, MITA2023, submitted (Jul. 11 ~ 15, Ostrava, Czech Republic)

Awards and Honors

- **Best Paper Award**, Korea Multimedia Association Spring Conference, Korea (May. 2022)
- **2022 Women Graduate Student Engineering Research Team Program**, Korea Women in Science and Technology Foundation, Korea (May. 2022)
- **Grand Prize** (Vice Prime Minister and Minister of Education Award), Education Open Data Analysis and Utilization Contest, Korea (Dec. 2022)

Personal Project

- Front-end, Back-end Development (2020.03~2021.10)
- Developed a car-aware double-parking prevention system based on deep learning (2023.04~05)

Projects

- Multiple Thermal Camera Calibration Based on Virtual Checkerboard Generation Using Deep Neural Network Model, Keimyung University, Korea / Research Assistant (2021.06 ~ 2022.01)
- Visual Information-based Korean Question and Answer System, Korea Women in Science and Technology Foundation, Korea / **Principal Investigator** (2022.05 ~2022.10)
- Research on planable artificial intelligence-based depth camera calibration technology using the context of the scene before and after the acquired image, Korea Research Foundation, Korea / Researcher (2022.07~ 2023.02)
- Camera calibration using a recurrent neural network for external environment recognition of mobile objects, Keimyung University, Korea / Researcher (2022.05~2023.02)
- Image Processing System for Forest Drone for Carbon Credits, Mirae World, Korea / Research Assistant (2021.06~ 2021.08)
- Deep neural network-based multi-perspective light field image mesh generation, Keimyung University, Korea / Research Assistant (2021.06~ 2021.11)
- Multiple Thermal Camera Calibration Based on Virtual Checkerboard Generation Using Deep Neural Network Model, Keimyung University, Korea / Research Assistant (2021.06~2022.01)
- Deep Learning and Real Scene-based Depth Camera Calibration for Building Intelligent Vision System for Unmanned Mobile Vehicles, Korea Research Foundation, Korea / Research Assistant (2021.03~ 2022.02)

Research & Work Experiences

- Research Student at **ISIP Lab**, Korea (Jan. 2021 ~ Feb.2023)
- Researcher Assistant at **DGIST**, Korea (Jan. 2022 ~ Dec.2022)