Suekyeong Nam

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Education

- **Kyung Hee University** — **Seoul, South Korea**
  M.S. in Computer Science and Engineering — *03/2018–02/2020*
  GPA: 4.28/4.5
- **Kyung Hee University** — **Seoul, South Korea**
  B.S. in Computer Science and Engineering — *03/2014–02/2018*
  Valedictorian(GPA: 4.23/4.5), Cumulative Rank: 1st among Computer Science and Engineering

Human Body Related Research Experience

- **3D Personal Avatar Generation for Extreme Augmented Reality** — **05/2020–Present**
  Research intern, KIST(Korea Institute of Science and Technology) — *Seoul, South Korea*
  - Predict human poses in real-time using voxel datasets, which are extracted from the multi-view depth camera images.
  - Infer 3D personal body shapes and textures based on 2D multi-view images.
- **Action Recognition Methods Effective for Both Spatial and Temporal Features** — **01/2015–02/2020**
  Undergraduate and Graduate researcher, Kyung Hee University — *Seoul, South Korea*
  - Started with extracting spatial and temporal features related to symmetrical movement only first. This method manually calculated the features along the spatial-temporal axis from 2D motion textures that are transformed from 3D skeleton data.
  - The follow-up work used CNN and LSTM to extract a variety of both spatial and temporal features. CNN Autoencoder reduced noise and dimensions on 2D motion textures. The compressed texture information enabled to utilize LSTM on images. Results published in 2018 SIGGRAPH Asia poster.
  - The last work used an adaptive graph structure instead of 2D motion textures, based on my observation of strong correlation between spatial and temporal features. Unlike prior work, this work generated inter-frame edges adaptively. Results will be published in ICPR 2020.
- **Evaluation of Gesture Recognition Algorithms for Embedded Devices** — **01/2017–02/2017**
  Research intern, SK TELECOM Co. — *Seoul, South Korea*
  - Compared, on an actual embedded AI computing device, the CNN-based algorithm that the project developed for 2D images against basic computer vision and other CNN-based algorithms.

Other Research Experience

- **Automatic Color Correction on 2D Product Images for Ecommerce** — **03/2018–02/2020**
  Graduate researcher, Kyung Hee University — *Seoul, South Korea*
  - Identified corresponding points across two different image dimensions, such as plain product shots and lifestyle images. Then corrected the colors on the lifestyle images to the ones in the other using transformation networks.
- **Real-time Color Model Learning for Adaptive Skin Segmentation.** — **01/2015–02/2018**
  Undergraduate researcher, Kyung Hee University — *Seoul, South Korea*

- Segmented personal skin using adaptive Gaussian distribution model for colors on videos

Software Competition Awards

- **Mosaicer: Automatic Pixelation of Untargeted Faces on Videos** **10/2016–01/2018**
  Grand Prize, NAVER crop.
  - Detected all human faces and pixelated all but the ones a video uploader selected. This was to protect privacy of others when one is uploading their videos online.

Honors and Awards

- **Entrance Examination Scholarship** **02/2018–08/2019**
  Kyung Hee University, for 4 semesters
- **Excellence Award** **02/2018**
  Kyung Hee University, Graduated with the highest honor in my class
- **National Science Technology scholarship** **03/2016–08/2017**
  Korea Student Aid Foundation, for 4 semesters
- **Superiority Scholarship** **08/2014–02/2015**
  Kyung Hee University, for 2 semesters

Computer Vision Related Class Project Experience

- **ADAS(Advanced Driver Assistance System) simulator** **03/2017–06/2017**
  - Implemented driver's action recognition algorithms to provide a solution to each recognized situation. The recognition algorithm used skeleton data from a 3D depth camera.
- **Presentation tool using Kinect** **03/2017–06/2017**
  - Using a 3D depth camera, enabled a presenter to point at, annotate on, and page-turn the presentation slides without a presentation remote or an electronic whiteboard.

Publications

Suekyeong Nam and Seungkyu Lee. Jt-mgcn: Joint-temporal motion graph convolutional network for skeleton-based action recognition. In ***2020 25th International Conference on Pattern Recognition (ICPR)***, pages 6383–6390. IEEE, 2021.

Suekyeong Nam and Seungkyu Lee. Motion regeneration using motion texture and autoencoder. In ***SIGGRAPH Asia 2018 Posters***. 2018.

Suekyeong Nam and Seungkyu Lee. On-line Color Model Learning for Adaptive Skin Segmentation. *Korea Computer Congress*, pages 1945–1947, 2015.