Jeesun Kim
Graphics Engineer

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G: https://github.com/emoy-kim
L: https://linkedin.com/in/emoy-kim

Experienced in Computer Graphics and Vision, majoring in Computer Science and Engineering.
Proficient in OpenGL, C/C++, CUDA, and FFMPEG.
Experienced in implementing a Graphics Renderer from scratch.
Interested in Graphics/Vision algorithms and Mathematics.

EXPERIENCE

Senior Graphics Engineer
Shuttlerock

Seoul, South Korea
08-2024 - present

Shakr has been acquired by Shuttlerock.

- Whole new text & shape rendering by implementing cubic/quartic/quintic equation solvers
- Over 80 effects support

Senior Graphics Engineer
Shakr Media

Seoul, South Korea
08-2019 - 02-2024

I am responsible for developing the OpenGL renderer from scratch communicating with *Adobe After Effects*. This project includes as follows:

- Linear and Bezier keyframing
- Video decoding and encoding acceleration with NVDEC/NVENC
- Audio processing such as stretching, panning, and volume control
- Common layer features including masks, layer parenting, track-matte, and motion blur
- Text leading, tracking, kerning, caps, and faux italic
- Text paths and animation
- Any shapes rendering including rectangles and ellipses with Bezier curves
- 3D camera viewing
- Lighting including ambient, point, spot, and parallel
- Running expressions written in Javascript with V8 engine
- Over 60 effects including corner-pin, fill, audio spectrum, wave warp, light sweep, etc.
- Layer styles; drop shadow, inner shadow, color overlay, and stroke

Associate Researcher
INTELLIVIX

Seoul, South Korea
03-2016 - 03-2019

I was responsible for developing and maintaining projects relating to Computer Graphics and Vision. Some projects to highlight are as follows:

- Estimating the frontal/lateral face images from lateral/frontal face images for face recognition
- Auto-calibration using objects being tracked
- Stabilization and turbulence removal in CCTV videos based on Qualcomm chip
- Fire, water-level, and weather detection
- Rendering virtual camera views without any graphics libraries
- People detection from an overhead-view single-depth camera

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Graphics Engineer

EDUCATION

| 2014 - 2016 | Master's of Computer Graphics | Sogang University |
| 2009 - 2014 | Bachelor's of Computer Science and Engineering | Sogang University |

PUBLICATION

Paper (Master Thesis) - J.Kim. (2016). Creating Panoramic Videos from Unsynchronized Camera Arrays

Patent - Sogang University, Method of Producing Panoramic Video Having Reduced Discontinuity for Images, Korea Patent #10-1741699, May 2017.

Patent - IntelliVIX, Apparatus and Method for Sensing Water Level, Korea Patent #10-2128934, Jun 2020.