

Keehong Youn

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younkhg.github.io

Employment

- Apple Inc. Vision Products Group, System Software team
 - From 10/28/2019 to Present
 - One Apple Park Way, Cupertino, CA 95014
 - Role: AR/VR Software Engineer
 - Develop and validate computer graphics software for AR (augmented reality) and VR (virtual reality) systems.
 - Design test procedure and write computer program for evaluating the quality and accuracy of computer graphics rendering of AR/VR application.
 - Design prototype applications and internal software for Apple Vision Pro product

Education

- Ph.D in Media Arts and Technology
 - Completion: 06/14/2019
 - University of California, Santa Barbara, United States of America
 - Advisor: JoAnn Kuchera-Morin
 - Research 1: Spherical projection mapping software for large scale VR system
 - Research 2: Volumetric visualizations of scientific data in VR environment
 - Emphasis: Developing digital media system for artistic and scientific purposes
 - Thesis: "A Compositional Interface for Generative Audiovisual Systems"
- Master of Science in Mechanical and Aerospace Engineering
 - Completion: 02/26/2014
 - Seoul National University, Republic of Korea
 - Advisor: Hyunwoo Bang
 - Research 1: Finger tracking interface development using depth sensing camera
 - Research 2: AR based cell tracking software development for microscopes
 - Emphasis: Designing innovative interface for human computer interaction
- Bachelor of Science in Mechanical and Aerospace Engineering
 - Completion: 02/24/2012
 - Seoul National University, Republic of Korea
 - Graduation project: autonomous cruise control using depth sensing camera

Publication

- PROBABLY/POSSIBLY?: An Immersive Interactive Visual/Sonic Quantum Composition and Synthesizer
 - JoAnn Kuchera-Morin et al.
 - Proceedings of the 25th ACM international conference on Multimedia, 2017
- Time-lapse microscopy using smartphone with augmented reality markers
 - Dongyoub Baek, Sungmin Cho, Kyungwon Yun, Keehong Youn and Hyunwoo Bang
 - Microscopy Research and Technique, Vol. 77, Issue 4, 2014
- ElaScreen: Exploring Multi-dimensional Data using Elastic Screen
 - Kyungwon Youn, Junbong Song, Keehong Youn, Sungmin Cho, Hyunwoo Bang
 - SIGCHI 2013 Extended Abstracts

Patent

- Apparatus and Method for Controlling of User Interface Equipped Touch Screen
 - Jin et al.
 - US Patent 9235284

Skills

- Interactive real-time graphics programming with OpenGL/GLSL and Metal framework
- General systems programming with C, C++, Objective-C, and Swift
- Multimedia programming and fast prototyping with OpenFrameworks(C++) and Processing(Java)
- Computer Vision applications using OpenCV (Python, C++)

Other

- Open Source Software Contribution : “Allolib”, a C++ library for interactive multimedia applications
 - Main author since the beginning of the project
 - <https://github.com/AlloSphere-Research-Group/allolib>