Keehong Youn

younkeehong@gmail.com | younkhg.github.io

I develop realtime audiovisual softwares for various environments and devices, from large scale multi-projection spaces to head-mounted displays.

Skills

- Proficient in realtime graphics programming with C++, OpenGL, and GLSL
- Experience with multimedia software frameworks: OpenFrameworks, Processing
- Python, Javascript, Unity3D
- Other: Adobe Creative Suite, SolidWorks, Rhino 3D

Education

Ph.D. in Media Arts and Technology. University of California, Santa Barbara (2019)
- Member of AlloSphere Research Group, as main developer of in-house C++ framework
- Research topic: Parameter control interface for audio-visual artwork

M.S. in Mechanical and Aerospace Engineering. Seoul National University (2014)
- Member of New Media Lab.
- Research topic: Finger tracking with depth sensing camera

B.S. in Mechanical and Aerospace Engineering. Seoul National University (2007)

Research

Electron Wavefunctions in a Hydrogen-Like Atom: Simulation, Visualization & Sonifcation (2015 - 2018)
- Participation: Development of software for spherical projection mapping
- Sponsor: AlloSphere Research Group, University of California, Santa Barbara

Transmission Electron Microscope/Atom Probe Visualization (2015 - 2016)
- Participation: Visualization of atom probe and transmission electron tomography data
- Sponsor: AlloSphere Research Group, University of California, Santa Barbara

Brain Fusion: Study of performing Arts and Design Using New Technology (2013)
- Participation: Development of the real-time wind data network software
- Sponsor: Seoul National University Development Fund

Spatial interface for improving UX of car navigation system (2012)
- Participation: Development of the spatial interface using depth sensing camera
- Sponsor: Hyundai NGV

Home Rehabilitation System for Upper Limbs of Stroke Patient (2012)
- Participation: Development of the upper body tracking system using depth sensing camera
- Sponsor: Korean Ministry of Knowledge Economy and Microsoft Asia

Single Cell Addressing by Microscope Augmented Reality (2012)
- Participation: Hardware setup for utilizing multiple depth sensing camera
- Sponsor: Korean Ministry of Education and Science Technology

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

Other

Instructor: Korea Creative Content Agency, "Content Fusion Academy" (2015, Korea)
- Visual programming for projection mapping with Processing

Developer: Eye-Tracking Solution Startup Company <MadGenerator> (2013 - 2014, Korea)
- UI developer for eye-tracking interface

Instructor: Samsung Electronics, "Software Challenge Camp" (2011, 2012, 2014, Korea)
- Visual and interactive programming with VVVV, Unity3D

Instructor: "Nabi WorkShop Series: New Media Programming" (2011, Korea)
- Visual and interactive programming with Processing, VVVV

The National Scholarship for Science and Engineering (2007 - 2011, Korea)