Keehong Youn

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Education

Ph.D. in Media Arts and Technology. University of California, Santa Barbara (2014 - Present)
- 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 (2012 - 2013)
- Member of New Media Lab.
- Research topic: Finger tracking with depth sensing camera

B.S. in Mechanical and Aerospace Engineering. Seoul National University (2006 - 2011)

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 andHyunwoo 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

Exhibition

"Reconstruction". Media Arts and Technology End of Year Show 2018. Santa Barbara, CA
- Large scale wall projection audio-visual work

"Fragments". Media Arts and Technology End of Year Show 2016. Santa Barbara, CA
- Video installation with lenticular film on display
- Collaboration with Jieliang (Rodger) Luo

"Earth, Wind, and Data". Seoul National University Concert Hall. Korea (2013)
- Choreography and acoustic music performance combined with digital audio-visual elements

"Drum The Wall". 2011 Seoul DMC Culture Open. Korea
- Interactive media facade with electric dum interface

Other

Developer: Nike Korea Women's Just Do It (2019, Korea)
- Game logic and network, ball sensing, visual display

Developer: Nike Korea School Challenge (2017, Korea)
- Game logic and network, visual display

Developer: Nike Korea Shooting Challenge (2015, Korea)
- Game logic, ball sensing, visual display

Show Organization: End of Year Show 2015 "Open Sources"
- Held by Media Arts and Technology, University of California, Santa Barbara
- Floor plan and prints

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

Technical Support: "Lunar Mir" at "Kintex 4D Live Park" by D'strict (2011, Korea)
- Electronics installation for sensor activated lighting

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)

Skills

C/C++, Python, C#, Java, Javascript, Matlab

OpenGL/GLSL, openFrameworks, Processing, Unity3D

Adobe Creative Suite: Photoshop, Illustrator, InDesign, Premiere

SolidWorks, Rhino

Mechanical engineering, Electrical engineering