Seonghyeon Moon

Homepage: https://moonsh.github.io/

Address

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Education

03/2015~02/2017 **Gwangju Institute of Science and Technology, South Korea**
MSc. Mechanical Engineering, advised by Prof. Kwanghee Ko
Laboratory of Modelling and Simulation
Thesis: Parameterization of Cylindrical Unorganized Point Clouds for Surface Fitting
GPA(3.86/4.5)

03/2009~02/2015 **University of Northumbria at Newcastle, United Kingdom**
BSc. Manufacturing Systems and Design Engineering
First class honours

03/2009~02/2015 **Seoul National University of Science and Technology, South Korea**
BSc. Industrial and Information Systems Engineering
Graduate summa cum laude
GPA(4.12/4.5)

Research Interest

Character Animation, 3D data process, Object Detection, Projection Mapping, Artificial Intelligence

Publication & Presentation

Parameterizing Cylindrical Unorganized Point clouds Using Multilevel B-Splines
S.H. Moon, J.E. Park, D.H. Yun, J.G. Kim, J.H. Park and K.H. Ko
Society for Computational Design and Engineering, PyeongChang, Korea, Feb. 2017

Projection Mapping for Free-form Surfaces
S.H. Moon, J.E. Park, D.W. Kim, I.Y. Oh, G.L. Song and K.H. Ko
Society for Computational Design and Engineering, PyeongChang, Korea, Feb. 2017

Registration of Point Clouds using Surface-based Correspondence Search
Y.H. Yoon, **S.H. Moon**, J.E. Park, J.G. Kim and K.H. Ko
Asian Conference of Design and Digital Engineering, Jeju, Korea, Oct. 2016,

Undistorted Projection over arbitrarily placed screen and mobile region of interest, using an uncalibrated camera
Mamona. A, H.H. An, **S.H. Moon**, J.E. Park and K.H. Ko
Society for Computational Design and Engineering, PyeongChang, Korea, Feb. 2016

Projects

Position: Project Team Leader   Apr.2016 ~ Feb.2017
Projection mapping for a medium object without distortion
Sponsored by Government, Ministry of Culture, Sports and Tourism, South Korea

Position: Participating Researcher   June.2016 ~ Dec.2016
Development of 3D scanning application for plant engineering
Sponsored by Government, Ministry of Trade, Industry and Energy, South Korea

Position: Participating Researcher   Mar.2016 ~ July.2016
Development of an artificial intelligence robot
Sponsored by the GIST Research Institute (GRI)

Position: Participating researcher   May.2015 ~ Mar.2016
Projection mapping for free-form surfaces
Sponsored by Government, Ministry of Culture, Sports and Tourism, South Korea

Experience

Research Assistant   Mar.2015 ~ Feb.2017
Laboratory of Modeling and Simulation, Gwangju Institute of Science and Technology, South Korea
Mentored by Prof. Kwanghee Ko.

Laboratory Manager   Dec.2016 ~ June.2016
Laboratory of Modeling and Simulation, Gwangju Institute of Science and Technology, South Korea

Volunteer   June.2013
SeoulTech International Summer School for foreign students

Leader of Korea's International youth   Nov.2012
South Korea's International youth exchange program (South Korea and Indonesia)
Sponsored by Government, Ministry of Gender Equality and Family

Manager Assistant   June.2012 ~ July.2012
Summer EPI(English & Professional Immersion) Program in University of Missouri in 4H, United States

Military Service   Feb. 1st, 2010 ~ Nov. 20th, 2011
Served and discharged from ROK army as network engineer, Sergeant

Teaching and Mentoring

Teaching Assistant   Gwangju Institute of Science and Technology, South Korea
Numerical Analysis and Visualization   Fall 2016
Taught Matlab, graded exams and programming assignments for undergraduate students

Course Mentor   Seoul National University of Science and Technology, South Korea
Physics   Fall 2012
Taught additional explanation of physics for undergraduate students

Skills

Languages: Korean (native), English (fluent)
Computer: C++ (Skillful), Matlab (Skillful), LATEX(Skillful), C (Normal), Java (Normal), Microsoft word, Excel and PowerPoint (Skillful)
Licenses: Network Advisor 2 from ICQA (Information & Communication Qualification Association of Korea)

Honors and Awards

• Government sponsored student 2015-2017 (Gwangju Institute of Science and Technology)
• Award for graduating summa cum laude
(Industrial and Information Systems Engineering, Seoul National University of Science and Technology, 2015)
• 2012 Winter scholarship English camp (Seoul National University of Science and Technology)
• 2012 Fall scholarship English camp (Seoul National University of Science and Technology)
• 2012 Spring scholarship English camp (Seoul National University of Science and Technology)
• Award for great grade in winter English camp (Seoul National University of Science and Technology, 2011)

• Award for great grade
(Industrial and Information Systems Engineering, Seoul National University of Science and Technology, 2010)

Core subject

2017. Completed using online lectures in the Cousera
• Algorithms (Stanford University, Taught by: Tim Roughgarden)
• Fundamentals of Computer Architecture (EIT Digital, Taught by: Juha Plosila)

Spring 2016.
• Advanced Computer Graphics (Highest score in the exams)
• Artificial Intelligence and Applications

Fall 2015.
 • Advanced CAD / CAM

Spring 2015.
• Photo-realistic Rendering and Global Illumination in Computer Graphics
• Engineering Electronics and Experiments

Fall 2014.
• Robotics

Spring 2014.
• Mechanical Vibrations

Fall 2013.
• Dynamics
• Digital Signal Processing
• Microprocessor and Computer Automation in Manufacturing

Spring 2013
• Computer Network
• Control
• Fluid Mechanics
• Signal and Systems
• Intro to Data analysis

Fall 2012.
• Applied Statistics in Manufacturing
• Electronics
• Engineering Mathematics II
• Energy Studies

Spring 2012.
• Computer Programming
• Engineering Mathematics I

Fall 2009.
• Calculus II
• Physics II
• Statistics

Spring 2009.

- Calculus I
- Physics I
- Computer

References

Excellent references available on request.