Seonghyeon Moon

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EDUCATION

Gwangju Institute of Science and Technology   Mar. 2015 - Feb. 2017

- M.S. in Mechanical Engineering   Gwangju, South Korea

  Adviser: Prof. Kwanghee Ko

  Thesis: Parameterization of Cylindrical Unorganized Point Clouds for Surface Fitting

Northumbria University   Mar. 2009 - Feb. 2015

- B.S. in Manufacturing and Systems Design Engineering   Newcastle, U.K.

  Graduated with First Class Honours

Seoul National Univerisity of Science and Technology   Mar. 2009 - Feb. 2015

- B.S. in Industrial and Information Systems Engineering   Seoul, South Korea

  Graduated Summa Cum Laude

PUBLICATIONS

JOURNALS

[1] Seonghyeon Moon and Kwanghee Ko, "A point projection approach for improving the accuracy of the multilevel B-spline approximation", *Journal of Computational Design and Engineering*, [Revise Manuscript Submitted] [pdf]

CONFERENCES

[1] S.H. Moon, J.H. Park and K.H. Ko, "Adaptive Method for 2.5D Scattered Point Approximation", in *23rd ACM Symposuium on Virtual Reality Software and Techonology (VRST2017)*, Guthenberg, Sweden, Nov. 2017. [pdf]

[2] Seonghyeon Moon, Jin-Eon Park and Kwanghee Ko, "Parameterization of unorganized cylindrical point clouds for least squares B-spline surface fitting", in *25th International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision 2017 (WSCG2017)*, Plzen, Czech Republic, Jun. 2017. [pdf]

RESEARCH EXPERIENCE

Modeling and Simulation Labortory   Mar. 2015 - Feb. 2017

Gwangju Institute of Science and Technology   Gwangju, South Korea

Research Assistant (Advisor : Kwanghee Ko)

- Led project on projection mapping for a medium object without distortion

  -Identified and checked project progress and set overall direction

  -Implemented projector and Kinect calibration and suggested methods for distortion correction using calibration results

- Participated project on development of 3D scanning application for plant engineering

  -Learned and implemented scattered data approximation using Multilevel B-Spline

- Participated project on projection mapping for free-form surfaces
  -Implemented projector and camera calibration to display the image at the desired position

TEACHING

Numerical Analysis and Visualization   Fall, 2016
Gwangju Institute of Science and Technology   Gwangju, South Korea
Teaching Assistant

- Taught MATLAP, graded exams and programming assignments for around 40 undergraduates.

Physics   Fall, 2012
Seoul National Univerisity of Science and Technology   Seoul, South Korea
Course Tutor

- Assisted 3 to 4 weak undergraduate students to improve their understanding of physics

HONORS & AWARDS

- Government Scholarship, Gwangju Institute of Science and Technology, 2015, 2016
- Award for graduating Summa Cum Laude,
  Seoul National Univerisity of Science and Technology, 2015
- Award for High G.P.A., Seoul National Univerisity of Science and Technology, 2010

WORK EXPERIENCE

Mandatory Military Service   Feb. 2010 – Nov. 2011
ATCIS Technician (Army Tactical Command Information System)   Hwacheon, South Korea

- Maintained every computer in the 7th Division (10-thousand army)
  approximately five hundred
- Maintained network hardwares (Router, Switch)
- Maintained ATCIS system (Army Tactical Command Information System): data backup,
  intranet maintenance, intranet installation

ACTIVITIES

International Summer School   Jun. 2013
Seoul National Univerisity of Science and Technology   Seoul, South Korea
Volunteer

- Helped foreign students who participated in summer school adapt to life in Korea

Ruby, School Magazine Club   Sep. 2013 – Aug. 2013
Seoul National Univerisity of Science and Technology   Seoul, South Korea
The editorial staff

- Participated in publishing three magazines. Wrote four articles and discussed overall design
  and structure of the magazine

  [1] UN's plan to decrease 23 bilion population to 13 bilion
  [2] Global talant project
  [3] Right-minded
  [4] The letter from Newcastle, U.K.

Intergovernmental youth exchange program   Nov. 2012
South Korea and Indonesia   Seoul, South Korea and Jakarta, Indonesia
Leader of 20 Korean youth delegates (From high school to university students)
- Counselled and made decision for young students so that the program proceeded without any problems
- Major activities : Visiting youth institutions in Indonesia, Culture exchange, Homestay, Korea Cultural performances for Indonesia students

SKILLS   **Advanced** : C++, MATLAP
                    Intermediate : C
                    Beginner : HTML, JAVA

LANGUAGES   - Korean: Native
                    - English: Fluent