

Hansoo Kim

2419 Edison Drive
West Lafayette, IN 47906

hansookim@purdue.edu
765-775-6330
www.hsookim.com

EDUCATION

- Aug 2012 to present **Ph.D. candidate (expected graduation: December 2016)**, Department of Computer Graphics Technology, *Purdue University*
- Sep 2008 to Aug 2010 **Master of Computer Science**, *Konkuk University, Republic of Korea*
Thesis: *Adaptive Data Management for User-oriented Air Quality Visualization on Mobile Device*
- Mar 2001 to Aug 2008 **Bachelor of Multimedia Engineering**, *Konkuk University, Republic of Korea*
Thesis: *Advanced Mesh Compression*

PROFESSIONAL EXPERIENCE

- Aug 2013 to present **Purdue University**, West Lafayette, IN
Research assistant (High Performance Computer Graphics Laboratory)
 - Inverse procedural modeling of natural appearance
 - Developed worldwide CO₂ emission visualization system (NASA project)
- May 2016 to Aug 2016 **Samsung Research America**, Mountain View, CA
Intern (Advanced Processor Laboratory)
 - Implemented tessellation algorithms in the software model of a GPU
- May 2015 to Aug 2015 **Samsung Research America**, Mountain View, CA
Intern (Advanced Processor Laboratory)
 - Implemented rasterization algorithms in the software model of a GPU
- Aug 2012 to May 2013 **Purdue University**, West Lafayette, IN
Teaching assistant
 - Taught Catia, Maya, and Rhino 3D
- Mar 2012 to Aug 2012 **DreamingTec**, Seoul, Republic of Korea
Software Developer
 - Developed nuclear reactor visualization system using Constructive Solid Geometry (CSG) in collaboration with Korea Atomic Energy Research Institute
- Mar 2007 to Sep 2010 **Konkuk University**, Seoul, Republic of Korea
Research assistant
 - Sensor network based real-time air quality visualization using particle system
 - Mobile air quality visualization using AR (iOS)
- Jun 2007 to Aug 2007 **SK C&C**, Seoul, Republic of Korea
Intern
 - Geometry and texture compression module

HONORS AND ACTIVITIES

- Apr 2015 The Sriver CGT Graduate Studies Awards, *Purdue University*
- Aug 2014 SIGGRAPH 2014 Student Volunteer, *ACM SIGGRAPH*
- Aug 2009 Graduate school scholarship, *Konkuk University, Republic of Korea*
- Aug 2008 Excellence award of graduation thesis (B.S.), *Konkuk University, Republic of Korea*

BOOKS AND CHAPTERS IN BOOKS

Computer Graphics Procedural Modeling of Soil Structure

Kim, H., Dorantes, M., Schulze, D. G., & Benes, B. (2016). In A. E. Hartemink & A. B. McBratney (Eds.), *Digital Soil Morphometrics*, Progress in Soil Science, New York: Springer.

JOURNAL PUBLICATIONS

Constructing u-City of Seoul by future foresight analysis

Jung-Hun Woo, HyungSeok Kim, Sang Beom Lim, Jae-Jin Kim, Jonghyun Lee, Rina Ryoo, Hansoo Kim, and Le Dinh Minh (2011). *Concurrency and Computation: Practice and Experience* 23(10): 1114-1126, Hoboken, NJ: Wiley.

AirScope: A Micro-scale Urban Air Quality Management System

Jung-Hun Woo, HyungSeok Kim, Sang Boem Lim, Jae-Jin Kim, Jonghyun Lee, Rina Ryoo, and Hansoo Kim (2010). *Lecture Notes in Computer Science*, Volume 6081/2010, 520-527, New York: Springer.

REFREED CONFERENCE PAPERS

Integrating Spatial Educational Experiences (Isee) – Mapping a New Approach to Teaching and Learning Soil Science

Benes, Bedrich; Glotzbach, Ronald J.; Kim, Hansoo; Nataraja, Kavin M.; Kong, Nicole; Bessenbacher, Ann M.; Graveel, John G.; Van Scoyoc, George E.; Owens, Phillip R.; Burgess, Wilella D.; Adedokun, Omolola A.; Liu, Jia; Branch, Benjamin D.; Bracke, Marianne S.; and Dorantes, Minerva. (2014). *Libraries Faculty and Staff Presentations*. Paper 59.

Adaptive Data Management for User-oriented Air Quality Visualization on Mobile Device

Hansoo Kim and HyungSeok Kim (2010). *Seventh International Conference & Expo on Emerging Technologies for a Smarter World (CEWIT 2010)*.

VR-Based Sensor Management System for USN-Based Air Quality Monitoring

Hansoo Kim, HyungSeok Kim, Hanku Lee, and Sung-Ryul Kim (2009). *Computer Sciences and Convergence Information Technology, ICCIT '09 Fourth International Conference on*, Seoul, Korea, pp. 330 – 334.

Adaptive VR-based Air Quality Visualization Using Perceptual Design

Hansoo Kim and HyungSeok Kim (2009). *ASIAGRAPH 2009*, Tokyo, Japan.

AirScope: A Micro-Scale Urban Air Quality Management System

Jung-Hun Woo, Sang Boem Lim, Karpjoo Jeong, HyungSeok Kim, Jae-Jin Kim, Jonghyun Lee, Junghee Kim, Taehoon Lee, Le Dinh Minh, Rina Ryoo, Suhyang Kim, Hansoo Kim, and Jee In Kim (2008). *eScience '08, IEEE Fourth International Conference on*, Indianapolis, USA, pp. 378 – 379.

INTELLECTUAL PROPERTIES

Mobile ARSMS: AR-based Sensor Management System

Hansoo Kim and HyungSeok Kim (2010). Protected Software No. 2010-01-121-006189, Korea Copyright Commission.

3D Compression: geometry compression library

Hansoo Kim, Eunsil Jang, Soojung Kim, and HyungSeok Kim (2010). Protected Software No. 2010-01-199-002334, Korea Copyright Commission.

SKILLS

| | |
|-----------------------|--|
| Programming Languages | C, C++ , JavaScript, and HTML |
| Libraries | OpenGL, OpenSceneGraph, CUDA, GLSL, WebGL , VTK, Qt, and OpenCV |
| Platforms | Windows , Linux, iOS , and Android |
| Software | CATIA, Maya, Photoshop, CMake, Perforce , and SVN |

ADDITIONAL LANGUAGES

| | |
|----------|--------------------------|
| Korean | Native proficiency |
| Japanese | Professional proficiency |