

# Sangil Lee

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## EDUCATION

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**Seoul National University, Korea, Republic of** 09/17 – present

*Ph.D. Student in Mechanical and Aerospace Engineering*

- Advisor: Professor H. Jin Kim
- Research Focus: 3D Vision for Autonomous Systems

**Seoul National University, Korea, Republic of** 03/15 – 08/17

*M.S. in Mechanical and Aerospace Engineering*

- Thesis: Robust Visual Odometry via Rigid Motion Segmentation for Dynamic Environments
- Advisor: Professor H. Jin Kim
- Cumulative GPA: 3.89/4.3

**Seoul National University, Korea, Republic of** 03/10 – 02/15

*B.S. in Electrical and Computer Engineering*

- Thesis: Adaptive Formation Control for Multi-agent Systems
- Advisor: Professor Hyungbo Shim
- GPA: 3.82/4.3 (cumulative) 3.95/4.3 (in major) Cum Laude

## EXPERIENCE

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**Sigma Intelligence, Seoul National University** 04/10 – present

*member of robotics club*

- Served as education director 03/11 – 02/12
  - made a curriculum of annual education
  - taught AVR/ MATLAB programming to freshmen
- Served as club vice president 03/12 – 02/13
  - Assisted club president with managing clubs

## PUBLICATIONS

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### International Journals

**Sangil Lee** and H. Jin Kim, “Real-time Robust Visual Odometry via Rigid Motion Segmentation for Dynamic Environments,” *IEEE Robotics and Automation Letters*, 2017. (under review)

### International Conferences

**Sangil Lee** and H. Jin Kim, “Real-time Rigid Motion Segmentation using Grid-based Optical Flow,” *System, Man, and Cybernetics, IEEE International Conference on*, 2017.

**Sangil Lee**, P. Jin Kim, Changhyeon Kim, and H. jin Kim, “Depth-based Direct Visual Odometry for Stereo Camera,” *Asia-Pacific International Symposium on Aerospace Technology*, 2016.

**Sangil Lee**, Seung-jae Lee, Jaehyun Park, and H. Jin Kim, “Exposure Correction and Image Blending for Planar Panorama Stitching,” *International Conference on Control, Automation and Systems*, 2016. (**Outstanding Paper Award**)

**Sangil Lee** and H. Jin Kim, “Detection of 3-Dimensional Textured Object without Depth Information,” *14th International Conference on Control, Automation and Systems*, Korea, October 13-16, 2015.

### Domestic Journals

**Sangil Lee**, P. Jin Kim, Changhyeon Kim, Hyeonbeom Lee, and H. Jin Kim, “Survey on Visual Odometry Technology for Unmanned Systems,” *Journal of Institute of Control, Robotics, and Systems*, 23(6):424-431, 2017.

### Domestic Conferences

**Sangil Lee** and H. Jin Kim, “Image Stitching for 2-D Global Mapping,” *31st Institute of Control, Robotics and Systems Annual Conference*, March 10-11, 2016.

**Sangil Lee** and H. Jin Kim, “Hexa-rotors 3-dimensional Position Control based on Spiral Potential Function with Collision Avoidance,” *The Korean Society for Aeronautical & Space Sciences Fall Conference*, November 18-20, 2015.

### HONORS, AWARDS, SCHOLARSHIPS

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· Outstanding Paper Award of the Ministry of Trade, Industry, and Energy	10/16
· BK21 plus PhD Fellowship Scholarship	03/15 – 02/16
· First prize in an 2012 International Capstone Design Fair	01/12

### SKILLS

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<b>Computer Languages</b>	C/C++, Matlab, Simulink, ROS, LabVIEW, Markdown
<b>Tools</b>	Vim, Git, Photoshop, Basic OrCAD, Solidworks
<b>Hardware</b>	AVR, Arduino, Arm processor, Basic spartan FPGA board programming