

Minhyuk Sung

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Research Interests

3D Machine Learning, Geometry Processing, Computer Graphics, Computer Vision.

Education

2013 - 2019	Ph.D. in Computer Science, Stanford University Stanford, CA, USA Dissertation: Learning and exploring the compositional structure of 3D data Advisor: Leonidas Guibas
2008 - 2010	Master of Science in Computer Science, Korea Advanced Institute of Science and Technology (KAIST) Daejeon, South Korea Thesis: A Spectral Approach to Shape Matching Using a Heat Kernel Function Advisor: Sung Yong Shin
2004 - 2008	Bachelor of Science in Computer Science, Korea Advanced Institute of Science and Technology (KAIST) Daejeon, South Korea <i>Top Rank</i> in Computer Science Department

Employment

Assistant Professor School of Computing, KAIST , Daejeon, Republic of Korea	Jan 2021 - Present
Research Scientist Adobe Research , San Jose, CA, USA	Oct 2019 - Dec 2020
Research Intern Autodesk Research , San Francisco, CA, USA	Jun 2017 - Sep 2017
Research Intern Adobe Research , Seattle, WA, USA	Jun 2016 - Sep 2016
Research Intern Google , Mountain View, CA, USA	Jun 2015 - Sep 2015
Research Intern Google , Mountain View, CA, USA	Jun 2014 - Sep 2014
Researcher Imaging Media Research Center (IMRC) Korea Institute of Science and Technology (KIST) , Seoul, South Korea	Mar 2010 - Jul 2013

Publications

1. **DeformSyncNet: Deformation Transfer via Synchronized Shape Deformation Spaces**
Minhyuk Sung*, Zhenyu Jiang*, Panos Achlioptas, Niloy J. Mitra, Leonidas J. Guibas
(* Equal contribution)
SIGGRAPH Asia 2020 (To appear)
2. **Deformation-Aware 3D Shape Embedding and Retrieval**
Mikaela Angelina Uy, Jingwei Huang, Minhyuk Sung, Tolga Birdal, Leonidas Guibas
ECCV 2020
3. **Neural Geometric Parser for Single Image Camera Calibration**
Jinwoo Lee, Minhyuk Sung, Hyunjoon Lee, Junho Kim
ECCV 2020
4. **Pix2Surf: Learning Parametric 3D Surface Models of Objects from Images**
Jiahui Lei, Srinath Sridhar, Paul Guerrero, Minhyuk Sung, Niloy Mitra, Leonidas Guibas
ECCV 2020
5. **Learning 3D Part Assembly from a Single Image**
Yichen Li*, Kaichun Mo*, Lin Shao, Minhyuk Sung, Leonidas Guibas
(* Equal contribution)
ECCV 2020
6. **Supervised Fitting of Geometric Primitives to 3D Point Clouds**
Lingxiao Li*, Minhyuk Sung*, Anastasia Dubrovina, Li Yi, and Leonidas Guibas
(* Equal contribution)
CVPR 2019 (Oral)
7. **GSPN: Generative Shape Proposal Network for 3D Instance Segmentation in Point Cloud**
Li Yi, Wang Zhao, He Wang, Minhyuk Sung, and Leonidas Guibas
CVPR 2019
8. **Deep Functional Dictionaries: Learning Consistent Semantic Structures on 3D Models from Functions**
Minhyuk Sung, Hao Su, Ronald Yu, and Leonidas Guibas
NeurIPS 2018
9. **Learning Fuzzy Set Representations of Partial Shapes on Dual Embedding Spaces**
Minhyuk Sung, Anastasia Dubrovina, Vladimir G. Kim, and Leonidas Guibas
SGP 2018 (Symposium on Geometry Processing)
10. **ComplementMe: Weakly-Supervised Component Suggestions for 3D Modeling**
Minhyuk Sung, Hao Su, Vladimir G. Kim, Siddhartha Chaudhuri, and Leonidas Guibas
SIGGRAPH Asia 2017
Featured in an ACM SIGGRAPH press release: [\[Link 1\]](#) [\[Link 2\]](#)
11. **Data-Driven Structural Priors for Shape Completion**
Minhyuk Sung, Vladimir G. Kim, Roland Angst, and Leonidas Guibas
SIGGRAPH Asia 2015

12. **Image Unprojection for 3D Surface Reconstruction: A Triangulation-based Approach**
Min-Hyuk Sung, Hwasup Lim, Hyoung-Gon Kim, and Sang Chul Ahn
IEEE International Conference on Image Processing (ICIP) 2013
13. **Finding the M-best Consistent Correspondences between 3D Symmetric Objects**
Min-Hyuk Sung and Junho Kim
Computers & Graphics, Feb.-Apr. 2013.
14. **A Triangulation-Invariant Method for Anisotropic Geodesic Map Computation on Surface Meshes**
Sang Wook Yoo, Joon-Kyung Seong, Min-Hyuk Sung, Sung Yong Shin and Elaine Cohen
IEEE Transactions on Visualization and Computer Graphics (TVCG), Oct. 2012.

Honors, Invited Talks, and Scholarships

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| 2019 | Doctoral Consortium
ICCV 2019 |
| 2019 | Doctoral Consortium
SIGGRAPH 2019 |
| 2013 | Doctoral Study Abroad Scholarship Recipient Honors
Korea Foundation for Advanced Studies (KFAS) |
| 2008-2010 | National Science and Engineering Graduate Research Scholarship
(S2-2008-000-00006-2)
Korea Student Aid Foundation (KOSAF) |
| 2004-2008 | National Science and Engineering Scholarship
Korea Student Aid Foundation (KOSAF) |
| 2005-2008 | Merit-based Scholarship
Korea Advanced Institute of Science and Technology (KAIST) |

Teaching Experience

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| 2018 Spring | Guest Lecturer
CS233 Geometric and Topological Data Analysis , Stanford |
| 2016 Fall | Course Assistance
CS268 Geometric Algorithms , Stanford |
| 2015 Fall | Course Assistance
CS348A Computer Graphics: Geometric Modeling , Stanford |
| 2009 Spring | Teaching Assistance
CS202 Problem Solving , KAIST |

Academic Activities

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| Reviewer | SIGGRAPH, SIGGRAPH Asia, Eurographics, Pacific Graphics,
NeurIPS, ICLR, CVPR, 3DV, WACV, ACCV,
ACM TOG, IEEE TVCG, CGF, TVC, C&G,
IEEE TPAMI, IEEE RA-L. |
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References

Leonidas Guibas	Professor, Stanford University	guibas@cs.stanford.edu
Vladimir Kim	Senior Research Scientist, Adobe Research	vokim@adobe.com
Siddhartha Chaudhuri	Assistant Professor, IIT Bombay	sidch@cse.iitb.ac.in
	Senior Research Scientist, Adobe Research	sidch@adobe.com
Hao (Richard) Zhang	Professor, Simon Fraser University	haoz@cs.sfu.ca