

# SIDDHARTHA CHAUDHURI

## CURRICULUM VITAE

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## RESEARCH INTERESTS

Data-driven geometric computing; 3D shape analysis, editing and synthesis

## EDUCATION

2011	Ph.D.	Computer Science	Stanford University
		<i>Dissertation: 3D Modeling with Data-Driven Suggestions; Supervisor: Vladlen Koltun</i>	
2009	M.S.	Computer Science	Stanford University
2005	B.Tech.	Computer Science & Engineering	IIT Kanpur

## EMPLOYMENT AND RESEARCH APPOINTMENTS

2017-present	Senior Research Scientist	Creative Intelligence Lab, Adobe Research
2017-2022	Assistant Professor (on leave)	Dept. of Computer Science & Engg., IIT Bombay
2015-2017	Assistant Professor	Dept. of Computer Science & Engg., IIT Bombay
2014-2015	Lecturer	Dept. of Computer Science, Cornell University
2012-2014	Postdoctoral Research Associate	Dept. of Computer Science, Princeton University ( <i>supervisor: Thomas Funkhouser</i> )
2011-2012	Postdoctoral Research Fellow	Dept. of Computer Science, Stanford University ( <i>supervisors: Thomas Funkhouser, Vladlen Koltun</i> )
2012	Architect & Chief Developer	FUSE Character Modeler, Mixamo Inc. (acquired by Adobe and released as part of Adobe Creative Cloud) <a href="https://www.adobe.com/products/fuse.html">https://www.adobe.com/products/fuse.html</a>
2009-2011	Research Assistant	Dept. of Computer Science, Stanford University ( <i>supervisor: Vladlen Koltun</i> )
2005-2008	Stanford Graduate Fellow	Dept. of Computer Science, Stanford University ( <i>supervisor: Vladlen Koltun</i> )
2004	Research Intern	École Polytechnique Fédérale de Lausanne ( <i>supervisor: Edoardo Charbon</i> )
2001-2005	Undergraduate Researcher	Dept. of Computer Science & Engg., IIT Kanpur ( <i>supervisors: Shashank K. Mehta, Ratan K. Ghosh, Amitabha Mukerjee</i> )

## HONOURS AND AWARDS (SELECTED LIST)

2022	Medal for Young Scientists, Indian National Science Academy
2018	Early Research Achiever Award (2017), IIT Bombay
2017	ACM press releases on SIGGRAPH & SIGGRAPH Asia papers (the conferences did not have best paper awards until 2022)
2015-2018	Institute Chair Assistant Professorship, IIT Bombay
2015	Selected as one of five Outstanding Faculty Members (across all departments) by the Cornell Class Council of 2018
2005-2008	PACCAR Inc. Stanford Graduate Fellowship
2005	Director's Gold Medal for Best All-Round Achievement and Leadership, IIT Kanpur
2005	Dr. V. Rajaraman Scholarship for Best Final Year Student in Computer Science (based on academic performance in 2001-04), IIT Kanpur
2002	Lucent Global Science Scholar
2000	The Telegraph Award for Best All-Round Student in the state of West Bengal, India
1999-2005	National Talent Search Scholarship, Govt. of India

### Awards won by student research advisees:

- Owais Khan: Research Excellence Award (B. Tech.), IIT Bombay CSE, 2017
- Sanjeev Mk: Research Excellence Award (M. Tech.), IIT Bombay CSE, 2017
- Priyadarshini K: TCS Research Fellowship, 2016-2019
- Sanjeev Mk: Qualcomm Innovation Fellowship, India, 2016

## PROFESSIONAL ACTIVITIES

- Keynote/Plenary Talks:
  - SMI 2021
  - NCVPRIPG 2019
  - NCVPRIPG 2017
- Journal Editorships: Computer Graphics Forum (Associate Editor, 2023-26), IEEE Trans. Visualization and Computer Graphics (Associate Editor, 2024-).
- Program Committee Member: SIGGRAPH 2024, Eurographics 2024, SIGGRAPH 2023, SGP 2022, IJCAI-ECAI 2022 Special Track on AI, the Arts and Creativity, SGP 2021, SGP 2020, IJCAI-PRICAI 2020, Graphics Interface 2020, SMI-FASE 2020, SGP 2019, IJCAI 2019, Graphics Interface 2019, SMI-FASE 2019, CAD/Graphics 2019, ECCV 2018, SMI 2018, CVPR 2018, AAAI 2018 (and also Demos), CAD/Graphics 2017, AAAI 2017 Demos, SIGGRAPH Asia 2016 Virtual Reality Meets Physical Reality Workshop, Eurographics 2015 (State-of-the-Art Reports, Short Papers), 2014 (Short Papers); SIGGRAPH Asia 2014 Workshop on Creative Shape Modeling and Design.
- Reviewer: SIGGRAPH, SIGGRAPH Asia, TOG, TPAMI, CVPR, ICCV, ECCV, CHI, UIST, NeurIPS, AAAI, ICLR, Eurographics, TVCG, Computer Graphics Forum, Computer-Aided Design, The Visual Computer, Shape Modeling International, CAD/Graphics, Graphical Models, Transactions on Information Systems.

- Workshop Organization:
  - ICCV 2021 Workshop on *Structural and Compositional Learning on 3D Data*.
  - CVPR 2021 Workshop on *Learning to Generate 3D Shapes and Scenes*.
  - CVPR 2020 Workshop on *Learning 3D Generative Models*.
  - Tristate Workshop on Imaging and Graphics 2014.
- Conference Administration: SIGGRAPH 2021 (Technical Papers Conflict of Interest Coordinator), ICVGIP 2020-21 (Winter School/Tutorials Co-Chair).
- (Non-University) Tutorial/Course Instructor:
  - *ACM India Summer School on Shape Modelling*, IIIT-Delhi (with Kaushik Kalyanaraman, Vijay Natarajan, Ramanathan M., Geetika Sharma, Aditya Tatu, and Ojaswa Sharma).
  - *Learning to Generate 3D Structures*, Eurographics 2019 (with Daniel Ritchie, Kai Xu, and Hao Zhang).
  - *The Semantics of Shape*, ICVGIP 2016.
  - *Data-Driven Visual Computing*, SIGGRAPH Asia 2014 (with Alexei Efros, Leonidas Guibas, Shi-Min Hu, Ariel Shamir, Kai Xu, and Jun-Yan Zhu).
- Technical Advisor: Mixamo Inc. (now acquired by Adobe).
- Public-Domain Software: The THEA graphics and geometry processing library, used in Mixamo Inc.'s (now Adobe's) FUSE character modeling tool and various research projects.  
<https://sidch.github.io/Thea>
- Author: *The Raytracing Repository*, a reference website on raytracing. Cited in university course materials, technical papers and popular science articles. Frequently recommended as a primary resource for beginners.

## UNIVERSITY TEACHING

Spring 2017	CS749: Digital Geometry Processing	Instructor	IIT Bombay
Fall 2016	CS475/675: Computer Graphics	Instructor	IIT Bombay
Spring 2016	CS749: Digital Geometry Processing	Instructor	IIT Bombay
Spring 2015	CS2800: Discrete Structures	Instructor	Cornell
Spring 2015	CS2110: Object-Oriented Prog. & Data Structures	Instructor	Cornell
Fall 2014	CS2800: Discrete Structures	Instructor	Cornell
Spring 2013	COS436: Human-Computer Interface Technology	Guest Lecturer	Princeton
Winter 2012	CS248: Interactive Computer Graphics	Guest Lecturer	Stanford
Winter 2011	CS248: Interactive Computer Graphics	Guest Lecturer	Stanford
Summer 2010	CS148: Introduction to Computer Graphics	Instructor	Stanford

## PUBLICATIONS

### Peer-reviewed

1. Jan Bednarik, Noam Aigerman, Vladimir G. Kim, **Siddhartha Chaudhuri**, Shaifali Parashar, Mathieu Salzmann, and Pascal Fua (2025). Temporally-Coherent Surface Reconstruction using Metrically-Consistent Atlases. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (to appear).
2. Qimin Chen, Zhiqin Chen, Vladimir Kim, Noam Aigerman, Hao Zhang, and **Siddhartha Chaudhuri** (2024). DECOLLAGE: 3D Detailization by Controllable, Localized, and Learned Geometry Enhancement. In: *Proc. ECCV*.
3. Sanjeev Muralikrishnan, Niladri Shekhar Dutt, **Siddhartha Chaudhuri**, Noam Aigerman, Vladimir Kim, Matthew Fisher, and Niloy J. Mitra (2024). Temporal Residual Jacobians for Rig-free Motion Transfer. In: *Proc. ECCV*.
4. Dmitry Petrov, Pradyumn Goyal, Vikas Thamizharasan, Vladimir Kim, Matheus Gadelha, Melinos Averkiou, **Siddhartha Chaudhuri**, and Evangelos Kalogerakis (2024). GEM3D: GEnerative Medial Abstractions for 3D Shape Synthesis. In: *Proc. SIGGRAPH (Conference Track)*.
5. R. Kenny Jones, **Siddhartha Chaudhuri**, and Daniel Ritchie (2024). Learning to Infer Generative Template Programs for Visual Concepts. In: *Proc. ICML*.
6. Arman Maesumi, Paul Guerrero, Vladimir Kim, Matthew Fisher, **Siddhartha Chaudhuri**, Noam Aigerman, and Daniel Ritchie (2023). Explorable Mesh Deformation Subspaces from Unstructured 3D Generative Models. In: *Proc. SIGGRAPH Asia (Conference Track)*.
7. Otman Benchekroun, Jiayi Eris Zhang, **Siddhartha Chaudhuri**, Eitan Grinspun, Yi Zhou, and Alec Jacobson (2023). Fast Complementary Dynamics via Skinning Eigenmodes. *ACM Transactions on Graphics (Proc. SIGGRAPH Journal Track)* 42(4).
8. Xianghao Xu, Paul Guerrero, Matthew Fisher, **Siddhartha Chaudhuri**, and Daniel Ritchie (2023). Unsupervised 3D Shape Reconstruction by Part Retrieval and Assembly. In: *Proc. CVPR*.
9. Bo Sun, Vladimir Kim, Qixing Huang, Noam Aigerman, and **Siddhartha Chaudhuri** (2022). PatchRD: Detail-Preserving Shape Completion by Learning Patch Retrieval and Deformation. In: *Proc. ECCV*.
10. Kai Wang, Paul Guerrero, Vladimir Kim, **Siddhartha Chaudhuri**, Minhyuk Sung, and Daniel Ritchie (2022). The Shape Part Slot Machine: Contact-based Reasoning for Generating 3D Shapes from Parts. In: *Proc. ECCV*.
11. Noam Aigerman, Kunal Gupta, Vladimir G. Kim, **Siddhartha Chaudhuri**, Jun Saito, and Thibault Groueix (2022). Neural Jacobian Fields: Learning Intrinsic Mappings of Arbitrary Meshes. *ACM Transactions on Graphics (Proc. SIGGRAPH Journal Track)* 41(4).
12. Sanjeev Muralikrishnan, **Siddhartha Chaudhuri**, Noam Aigerman, Vladimir G. Kim, Matthew Fisher, and Niloy Mitra (2022). GLASS: Geometric Latent Augmentation for Shape Spaces. In: *Proc. CVPR*.

13. Danyong Zhao, Yijing Li, **Siddhartha Chaudhuri**, Timothy Langlois, and Jernej Barbič (2022). ERGOBOSS: Ergonomic Optimization of Body-Supporting Surfaces. *IEEE Trans. Visualization and Computer Graphics* **28**(12).
14. Pratheba Selvaraju, Mohamed Nabail, Marios Loizou, Maria Maslioukova, Melinos Averkiou, **Siddhartha Chaudhuri**, and Evangelos Kalogerakis (2021). BuildingNet: Learning to Label 3D Buildings. In: *Proc. ICCV (oral)*.
15. Jan Bednarik, Vladimir G. Kim, **Siddhartha Chaudhuri**, Shaifali Parashar, Mathieu Salzmann, Pascal Fua, and Noam Aigerman (2021). Temporally-Coherent Surface Reconstruction via Metric-Consistent Atlases. In: *Proc. ICCV*.
16. Priyadarshini K, **Siddhartha Chaudhuri**, Vivek Borkar, and Subhasis Chaudhuri (2021). A Unified Batch Selection Policy for Active Metric Learning. In: *Proc. ECML PKDD*.
17. Zhiqin Chen, Vladimir G. Kim, Matthew Fisher, Noam Aigerman, Hao Zhang, and **Siddhartha Chaudhuri** (2021). DECOR-GAN: 3D Shape Detailization by Conditional Refinement. In: *Proc. CVPR (oral)*.
18. Mikaela Angelina Uy, Vladimir G. Kim, Minhyuk Sung, Noam Aigerman, **Siddhartha Chaudhuri**, and Leonidas Guibas (2021). Joint Learning of 3D Shape Retrieval and Deformation. In: *Proc. CVPR*.
19. Kangxue Yin, Zhiqin Chen, **Siddhartha Chaudhuri**, Matthew Fisher, Vladimir G. Kim, and Hao Zhang (2020). COALESCE: Component Assembly by Learning to Synthesize Connections. In: *Proc. 3DV (oral)*.
20. Xianghao Xu, David Charatan, Sonia Raychaudhuri, Hanxiao Jiang, Mae Heitmann, Vladimir G. Kim, **Siddhartha Chaudhuri**, Manolis Savva, Angel Chang, and Daniel Ritchie (2020). Motion Annotation Programs: A Scalable Approach to Annotating Kinematic Articulations in Large 3D Shape Collections. In: *Proc. 3DV*.
21. Gopal Sharma, Difan Liu, Evangelos Kalogerakis, Subhansu Maji, **Siddhartha Chaudhuri**, and Radomír Měch (2020). ParSeNet: A Parametric Surface Fitting Network for 3D Point Clouds. In: *Proc. ECCV*.
22. Hsueh-Ti Derek Liu, Vladimir G. Kim, **Siddhartha Chaudhuri**, Noam Aigerman, and Alec Jacobson (2020). Neural Subdivision. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **39**(4).
23. Priyadarshini K, Ritesh Goru, **Siddhartha Chaudhuri**, and Subhasis Chaudhuri (2020). Batch Decorrelation for Active Metric Learning. In: *Proc. IJCAI-PRICAI*.
24. Wang Yifan, Noam Aigerman, Vladimir G. Kim, **Siddhartha Chaudhuri**, and Olga Sorkine-Hornung (2020). Neural Cages for Detail-Preserving 3D Deformations. In: *Proc. CVPR (oral)*.
25. Chenyang Zhu, Kai Xu, **Siddhartha Chaudhuri**, Li Yi, Leonidas Guibas, and Hao Zhang (2020). AdaCoSeg: Adaptive Shape Co-Segmentation with Group Consistency Loss. In: *Proc. CVPR (oral)*.

26. Chu Wang, Babak Samari, Vladimir G. Kim, **Siddhartha Chaudhuri**, and Kaleem Siddiqi (2020). Affinity Graph Supervision for Visual Recognition. In: *Proc. CVPR*.
27. **Siddhartha Chaudhuri**, Daniel Ritchie, Jiajun Wu, Kai Xu, and Hao Zhang (2020). Learning Generative Models of 3D Structures. *Eurographics State-of-the-Art Reports (STAR)*.
28. Zhiqin Chen, Kangxue Yin, Matthew Fisher, **Siddhartha Chaudhuri**, and Hao Zhang (2019). BAE-NET: Branched Autoencoder for Shape Co-Segmentation. In: *Proc. ICCV*.
29. Priyadarshini K, **Siddhartha Chaudhuri**, and Subhasis Chaudhuri (2019). PerceptNet: Learning Perceptual Similarity of Haptic Textures in Presence of Unorderable Triplets. In: *Proc. World Haptics Conference*.
30. Sanjeev Muralikrishnan, Vladimir G. Kim, Matthew Fisher, and **Siddhartha Chaudhuri** (2019). Shape Unicode: A Unified Shape Representation. In: *Proc. CVPR*.
31. Manyi Li, Akshay Gadi Patil, Kai Xu, **Siddhartha Chaudhuri**, Owais Khan, Ariel Shamir, Changhe Tu, Baoquan Chen, Daniel Cohen-Or, and Hao Zhang (2019). GRAINS: Generative Recursive Autoencoders for INdoor Scenes. *ACM Transactions on Graphics* **38**(2).
32. Chenyang Zhu, Kai Xu, **Siddhartha Chaudhuri**, Renjiao Yi, and Hao Zhang (2018). SCORES: Shape Composition with Recursive Substructure Priors. *ACM Transactions on Graphics (Proc. SIGGRAPH Asia)* **37**(6).
33. Hubert Lin, Melinos Averkiou, Evangelos Kalogerakis, Balazs Kovacs, Siddhant Ranade, Vladimir G. Kim, **Siddhartha Chaudhuri**, and Kavita Bala (2018). Learning Material-Aware Local Descriptors for 3D Shapes. In: *Proc. 3DV*.
34. Sanjeev Muralikrishnan, Vladimir G. Kim, and **Siddhartha Chaudhuri** (2018). Tags2Parts: Discovering Semantic Regions from Shape Tags. In: *Proc. CVPR*.
35. Shiv Shankar, Vihari Piratla, Soumen Chakrabarti, **Siddhartha Chaudhuri**, Preethi Jyothi, and Sunita Sarawagi (2018). Generalizing Across Domains via Cross-Gradient Training. In: *Proc. ICLR*.
36. Haibin Huang, Evangelos Kalogerakis, **Siddhartha Chaudhuri**, Duygu Ceylan, Vladimir G. Kim, and Ersin Yumer (2018). Learning Local Shape Descriptors from Part Correspondences with Multiview Convolutional Networks. *ACM Transactions on Graphics* **37**(1).
37. Minhyuk Sung, Hao Su, Vladimir G. Kim, **Siddhartha Chaudhuri**, and Leonidas Guibas (2017). ComplementMe: Weakly-Supervised Component Suggestion for 3D Modeling. *ACM Transactions on Graphics (Proc. SIGGRAPH Asia)* **36**(6).
38. Jun Li, Kai Xu, **Siddhartha Chaudhuri**, Ersin Yumer, Hao Zhang, and Leonidas Guibas (2017). GRASS: Generative Recursive Autoencoders for Shape Structures. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **36**(4).
39. Evangelos Kalogerakis, Melinos Averkiou, Subhansu Maji, and **Siddhartha Chaudhuri** (2017). 3D Shape Segmentation with Projective Convolutional Networks. In: *Proc. CVPR (oral)*.

40. Xuekun Guo, Juncong Lin, Kai Xu, **Siddhartha Chaudhuri**, and Xiaogang Jin (2016). CustomCut: On-demand Extraction of Customized 3D Parts with 2D Sketches. In: *Proc. Symposium on Geometry Processing*.
41. Ersin Yumer, **Siddhartha Chaudhuri**, Jessica K. Hodgins, and Levent Burak Kara (2015). Semantic Shape Editing Using Deformation Handles. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **34**(4).
42. Tianqiang Liu, **Siddhartha Chaudhuri**, Vladimir G. Kim, Qixing Huang, Niloy J. Mitra, and Thomas Funkhouser (2014). Creating Consistent Scene Graphs Using a Probabilistic Grammar. *ACM Transactions on Graphics (Proc. SIGGRAPH Asia)* **33**(6).
43. Vladimir G. Kim, **Siddhartha Chaudhuri**, Leonidas Guibas, and Thomas Funkhouser (2014). Shape2Pose: Human-Centric Shape Analysis. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **33**(4).
44. **Siddhartha Chaudhuri**, Evangelos Kalogerakis, Stephen Giguere, and Thomas Funkhouser (2013). AttribIt: Content Creation with Semantic Attributes. In: *Proc. UIST*.
45. Vladimir G. Kim, W. Li, Niloy J. Mitra, **Siddhartha Chaudhuri**, Stephen DiVerdi, and Thomas Funkhouser (2013). Learning Part-Based Templates from Large Collections of 3D Shapes. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **32**(4).
46. Evangelos Kalogerakis, **Siddhartha Chaudhuri**, Daphne Koller, and Vladlen Koltun (2012). A Probabilistic Model for Component-Based Shape Synthesis. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **31**(4).
47. **Siddhartha Chaudhuri**, Evangelos Kalogerakis, Leonidas Guibas, and Vladlen Koltun (2011). Probabilistic Reasoning for Assembly-Based 3D Modeling. *ACM Transactions on Graphics (Proc. SIGGRAPH)* **30**(4).
48. **Siddhartha Chaudhuri** and Vladlen Koltun (2010). Data-Driven Suggestions for Creativity Support in 3D Modeling. *ACM Transactions on Graphics (Proc. SIGGRAPH Asia)* **29**(6).
49. **Siddhartha Chaudhuri** and Vladlen Koltun (2009). Smoothed Analysis of Probabilistic Roadmaps. *Computational Geometry: Theory and Applications* **42**(8), 731–747.
50. **Siddhartha Chaudhuri**, Randhir K. Singh, and E. Charbon (2005). Feature-Based Techniques for Real-Time Morphable Model Facial Image Analysis. In: *Image and Video Communications and Processing Conference, IS&T/SPIE's 17th Annual Symposium on Electronic Imaging Science and Technology*. San Jose.
51. Manu Chhabra, Anusheel Nahar, Nishant Agrawal, Tamhant Jain, Amitabha Mukerjee, Apurva Mathad, and **Siddhartha Chaudhuri** (2004). Novel Approaches to Vision and Motion Control for Robot Soccer. In: *National Conference on Advanced Manufacturing and Robotics*. CMERI, Durgapur.

**Not peer-reviewed**

52. Utkarsh Mall, G. Roshan Lal, **Siddhartha Chaudhuri**, and Parag Chaudhuri (2017). A Deep Recurrent Framework for Cleaning Motion Capture Data. *CoRR* **abs/1712.03380**.

53. **Siddhartha Chaudhuri**, Daniel Horn, Pat Hanrahan, and Vladlen Koltun (2009). *Image-Based Exploration of Massive Online Environments*. Tech. rep. CSTR 2009-02. Stanford University.
54. **Siddhartha Chaudhuri**, Ratan K. Ghosh, and Sajal K. Das (2005). Towards Optimal Sensor Placement with Hypercube Cutting Planes. In: *IEEE Wireless Communications and Networking Conference (invited paper)*. New Orleans.

#### Patents (issued, others filed and under review)

55. Ashish Jindal, Vineet Batra, Sumit Dhingra, **Siddhartha Chaudhuri**, Nathan Carr, and Ankit Phogat (2025). Visualizing Vector Graphics in Three-Dimensional Scenes. *US Patent 12229892*.
56. Sumit Dhingra, **Siddhartha Chaudhuri**, and Vineet Batra (2024). Applying Vector-Based Decals on Three-Dimensional Objects. *US Patent 12198284*.
57. **Siddhartha Chaudhuri**, Vladimir Kim, Matthew Fisher, and Sanjeev Muralikrishnan (2023). Unified Shape Representation. *US Patent 11551038*.
58. Duygu Ceylan Aksit, Vladimir Kim, **Siddhartha Chaudhuri**, Radomír Měch, Noam Aigerman, Kevin Wampler, Jonathan Eisenmann, Giorgio Gori, and Emiliano Gambaretto (2023). Intuitive 3D Geometry Editing of Man-Made Shapes. *UK Patent 2578190*.
59. Vladimir Kim, **Siddhartha Chaudhuri**, Noam Aigerman, Hsueh-Ti Liu, and Alec Jacobson (2022b). Subdividing a Three-Dimensional Mesh Utilizing a Neural Network. *US Patent 11423617, continuation as 12118669*.
60. Duygu Ceylan Aksit, Vladimir Kim, **Siddhartha Chaudhuri**, Radomír Měch, Noam Aigerman, Kevin Wampler, Jonathan Eisenmann, Giorgio Gori, and Emiliano Gambaretto (2022). Intuitive 3D Geometry Editing of Man-Made Shapes. *Australian Patent 2019213451*.
61. Vladimir Kim, **Siddhartha Chaudhuri**, Noam Aigerman, Hsueh-Ti Liu, and Alec Jacobson (2022a). Decimating a Three-Dimensional Mesh via Successive Self-Parameterization. *US Patent 11257290*.
62. Duygu Ceylan Aksit, Vladimir Kim, **Siddhartha Chaudhuri**, Radomír Měch, Noam Aigerman, Kevin Wampler, Jonathan Eisenmann, Giorgio Gori, and Emiliano Gambaretto (2021). Intuitive Editing of Three-Dimensional Models. *US Patent 10957117, continuation as 11694416*.

#### TALKS

(since 2013, excluding conference presentations of accepted papers and internal talks)

- *Conditional Detailization*, IIT Bombay, India, 2 Nov 2022.
- *Geometric Deep Learning*, ACM India Summer School on Shape Modelling, IIIT Delhi, India, 27 Jul 2022.
- *Data-Driven 3D Modeling*, Shape Modeling International (Keynote), (fully virtual conference), 15 Nov 2021.
- *Assembly-Based Modeling: Past, Present and Future*, Toronto Geometry Colloquium (virtual talk series), 21 Apr 2021.



- *Conditional Detailization*, 3DGV Seminar (virtual talk series), 14 Apr 2021.
- *More from Less: Reducing Supervision for 3D Shape Segmentation*, CVPR Geometric Deep Learning Workshop (fully virtual conference), 19 Jun 2020.
- *Beyond the Grid: 3D Deep Learning in Irregular Domains*, Computer Vision Guest Lecture, Indian Institute of Science, India, 9 Mar 2020.
- *Deep Generative Models for 3D Shapes (and Other Irregular Domains)*, Understanding Visual Appearance Workshop, IIT Bombay, India, 4 Mar 2020.
- *Deep Generative Models of Visual Appearance*, Understanding Visual Appearance Workshop, IIT Bombay, India, 4 Mar 2020.
- *Learning to Generate 3D Structures*, NCVPRIPG (Keynote), Hubballi, India, 22 Dec 2019.
- *Recursive Neural Networks for Scene Synthesis*, CVPR 3D Scene Generation Workshop, Long Beach, USA, 16 Jun 2019.
- *Geometric and Generative Modeling Basics*, Eurographics Tutorial, Genoa, Italy (virtual talk), 6 May 2019.
- *Beyond the Grid: 3D Deep Learning in Irregular Domains*, Computer Vision Guest Lecture, Indian Institute of Science, India, 25 Mar 2019.
- *Deep Learning for 3D (and Other Irregular Domains)*, Deep Learning Workshop, IIT Bombay, India, 27 Feb 2019.
- *Variational Autoencoders and Generative Adversarial Networks*, Deep Learning Workshop, IIT Bombay, India, 26 Feb 2019.
- *Deep Recursive Models for 3D Shape Synthesis*, NVIDIA AI Workshop, Bangalore, India, 20 Feb 2019.
- *3D Design with High-Level, Data-Driven Priors*, Early Research Achiever Award Lecture, IIT Bombay, India, 29 Oct 2018.
- *SCRNN: Shape Composition with Recursive Neural Networks*, IIT Bombay, India, 14 Mar 2018.
- *More from Less: 3D Shape Analysis with Weak Supervision*, NCVPRIPG (Plenary), Mandi, India, 19 Dec 2017.
- *Learning Shape Semantics for Design*, Microsoft Research, Bangalore, India, 17 Aug 2017.
- *GRASS: Generative Recursive Autoencoders for Shape Structures*, Microsoft Research, Seattle, USA, 28 Jul 2017.
- *More from Less: 3D Shape Analysis with Weak Supervision*, Adobe Research, Seattle, USA, 27 Jul 2017.
- *GRASS: Generative Recursive Autoencoders for Shape Structures*, Microsoft Research, Bangalore, India, 3 Mar 2017.
- *GRASS: Generative Recursive Autoencoders for Shape Structures*, IIT Bombay, India, 1 Feb 2017.
- *The Semantics of Shape: Computational Methods for High-Level 3D Shape Analysis*, ICVGIP, Guwahati, India, 18 Dec 2016.
- *The Semantics of Shape: Computational Methods for High-Level 3D Shape Analysis*, IBM I-CARE, Bangalore, India, 15 Oct 2016.
- *Semantic Shape Editing*, Indian Institute of Science, Bangalore, India, 1 Aug 2016.

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- *Data-Driven Design*, Qualcomm, Bangalore, India, 4 Jul 2016.
  - *Semantic Shape Editing*, IIT Bombay, India, 16 Sep 2015.
  - *Data-Driven Design*, SIGGRAPH Asia Courses, Shenzhen, China, 4 Dec 2014.
  - *3D Modeling with Semantic Attributes*, Cornell University, Ithaca, USA, 10 Feb 2014.
  - *3D Content Creation with Semantic Attributes*, IIT Bombay, India, 23 Oct 2013.
  - *3D Content Creation with Semantic Attributes*, IIT Kanpur, India, 21 Oct 2013.
  - *3D Content Creation with Semantic Attributes*, IIT Delhi, India, 17 Oct 2013.
  - *3D Content Creation with Semantic Attributes*, Oxford University, UK, 14 Oct 2013.
  - *3D Content Creation with Semantic Attributes*, University College London, UK, 7 Oct 2013.