

Siddharth Katageri

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INTERESTS	Computer Vision, Geometric Deep Learning, 3D Shape Analysis, Multi-modal Learning	
EDUCATION	Indian Institute of Information Technology, Hyderabad, India (IIIT-H) Masters by Research (MS) in Computer Science and Engineering	2021
	KLE Technological University, Hubballi, India B.Eng. in Computer Science and Engineering, GPA: 8.66/10	2017 - 2021
	Alvas PU College, Moodbidri, India Percentage: 92%	2015 - 2017
EXPERIENCE	Center of Excellence in Visual Intelligence, Hubballi - Research Intern Mar 2021 - Aug 2021 Researching on 3D shape decomposition towards better 3D scene understanding and 3D reconstruction. Developed a novel method for shape decomposition into basic shapes, improving the performance on various 3D analysis tasks. Under the guidance of: Prof. Uma Mudengudi	
	Computer Vision and Graphics Laboratory, Hubballi 2019 - 2020 An active member of CVG Research Lab working towards solving problems in Computer Vision and 3D processing.	
	Indian Institute of Technology, Delhi - Project Trainee 2019 - 2019 Worked with Prof. Prem Kumar Kalra and his Ph.D. students on the project “Drilling Effectualness”, which was a collaborative project with AIIMS, Delhi.	
PROJECT DETAILS	Attention Based Decomposition Network for 3D Point Cloud Decomposition Summary: We propose ABD-Net the captures the inherent geometry of a 3D point cloud and represents it using basic shapes namely, plane, sphere, cone and cylinder. We show effectiveness of proposed model by showing improved classification performance of a 3D classifier.	
	3D Object Categorization Network using Point Cloud Decomposition Summary: We propose PointDCCNet for 3D object categorization using point cloud decomposition. The decomposition of point clouds provides a geometrical signature of the 3D object used towards modelling a 3D classifier.	
	Vision-Based Techniques to Evaluate Effectualness of Micro Suturing by Trainee Neurosurgeons Summary: We design and implement a vision-based technique for automated evaluation and scoring of the micro-suturing performed by trainee neurosurgeons.	
PUBLICATIONS	ABD-Net: Attention Based Decomposition Network for 3D Point Cloud Decomposition  Siddharth Katageri , Shashidhar Kudari, Akshay Gunari, Ramesh Tabib, Uma Mudengudi <i>Accepted at ICCVW, 2021</i>	
	PointDCCNet: 3D Object Categorization Network using Point Cloud Decomposition  Siddharth Katageri , Sameer Kulmi, Ramesh Tabib, Uma Mudengudi <i>Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2021</i>	
PATENT	Patent filing in process with KLE Technological University on “ABD-Net: Attention Based Decomposition”, 2021.	

TRAINING AND
CERTIFICATIONS

- Attended a workshop on **3D Computer Vision at IIT Hyderabad**. (2020)
- **CVG Winter Workshop** on Image Processing, Machine Learning and Neural Networks. (2019)
- Completed **Neural Networks and Deep Learning** course authorized by deeplearning.ai, offered through Coursera.
- Completed **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization** course authorized by deeplearning.ai, offered through Coursera.
- Completed **Structuring Machine Learning Projects** course authorized by deeplearning.ai, offered through Coursera.
- Completed **Convolutional Neural Networks** course authorized by deeplearning.ai, offered through Coursera.

TEACHING AND
EVENTS

- Active Volunteer in organizing and managing **NCVPRIPG - 2019**, which was organized at KLE Technological University, Hubballi, Karnataka
- Active Volunteer in conducting workshop on Image Processing, Machine Learning and Computer Vision conducted by CVG. (2019, 2020)

TECHNICAL
SKILLS

Tools and Libraries: OpenCV, Pytorch, Meshlab, Git
Programming Languages: Python, C++, C

PERSONAL
DETAILS

Date of birth: 19, July, 1999
Languages known: English, Hindi, Marathi, Kannada
Hobbies: Reading, Sketching, Cooking
Place: Pune, Maharashtra