Siddharth Katageri

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INTERESTS

3D Computer Vision, Human-Scene Interaction, Representation Learning

EDUCATION

International Institute of Information Technology, Hyderabad (IIIT-H)   Aug 2021 - Mar 2024
Masters by Research, Computer Science and Engineering, GPA: 8.57/10

KLE Technological University, Hubballi   Jul 2017 - Jun 2021
B.Eng. in Computer Science and Engineering, GPA: 8.66/10

EXPERIENCE

International Institute of Information Technology, Hyderabad (IIIT-H)
Research Fellow - Machine Learning Lab (MLL)   Aug 2021 - Present
advised by **Prof. Charu Sharma** and **Prof. Kai Han**

- Working on 3D Computer Vision topics like representation learning in non-euclidean spaces, domain adaptation, and learning human-scene interactions.

KLE Technological University, Hubballi
Research Intern - Center of Excellence in Visual Intelligence (CEVI)   Mar 2021 - Aug 2021
advised by **Prof. Uma Mudenagudi**

- Worked on the task of 3D shape decomposition into basic primitive shapes towards improving the performance of various 3D analysis tasks.

Indian Institute of Technology, Delhi (IIT-D)
Project Trainee   Jun 2019 - Jul 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.

PUBLICATIONS

Synergizing Contrastive Learning and Optimal Transport for 3D Point Cloud Domain Adaptation ⬀
Siddharth Katageri*, Arkadipta De*, Chaitanya Devaguptapu*, VSSV Prasad, Charu Sharma, Manohar Kaul
Winter Conference on Applications of Computer Vision (WACV), 2024, **Oral**

Metric Learning for 3D Point Clouds Using Optimal Transport ⬀
Siddharth Katageri, Srinjay Sarkar, Charu Sharma
Winter Conference on Applications of Computer Vision Workshops (WACVW), 2024 - Pretrain ⬀

ABD-Net: Attention Based Decomposition Network for 3D Point Cloud Decomposition ⬀
Siddharth Katageri, Shashidhar Kudari, Akshay Gunari, Ramesh Tabib, Uma Mudengudi
International Conference on Computer Vision Workshops (ICCVW), 2021 - StruCo3D ⬀

PointDCCNet: 3D Object Categorization Network using Point Cloud Decomposition ⬀
Siddharth Katageri, Sameer Kulmi, Ramesh Tabib, Uma Mudengudi
Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2021 - WiCV ⬀

PAST AND ONGOING PROJECTS

Learning Human-Object Interactions in Real 3D Scenes (*ongoing*)
Summary: We are interested in building systems that comprehend human motion and interactions in 3D environments and are actively working on it.

Vision-Based Techniques to Evaluate Effectualness of Micro Suturing by Trainee Neurosurgeons
Summary: We designed and implemented a vision-based technique for automated evaluation and scoring of the micro-suturing performed by trainee neurosurgeons. This project was done in collaboration with AIIMS, Delhi.

TEACHING AND EVENTS

- Active volunteer in organizing and managing the **3D Vision Summer School** in 2022 and 2023 organized at IIIT Hyderabad. Designed and conducted tutorial sessions on getting started with 3D Vision (slides ⬀).

- Active volunteer in managing the **Summer School on AI** in 2023 organized at IIIT Hyderabad.

- Active volunteer in managing **NCVPRIPG-2019**, which was organized at KLE Technological University.

- Active Volunteer in conducting workshops on Image Processing, Machine Learning, and Computer Vision conducted by CVG. (2019, 2020)

CERTIFICATIONS AND ACHIEVEMENTS

- Attended a workshop on 3D Computer Vision at IIIT Hyderabad. (2020)

- Attended CVG Winter Workshop on Image Processing, Machine Learning and Neural Networks.

- Completed multiple courses of *Deep Learning Specialization* authorized by deeplearning.ai, offered through Coursera.

- Won multiple state and national level awards in the Abacus and Mental Math Championship. (*National rank: 65*)

TECHNICAL SKILLS

Languages: Python, C, C++
Framework: PyTorch
Tools: Blender, MeshLab, Git