Dikshit Hegde

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Understanding *how human brain perceives three-dimensional space* is a challenging task. As a Research Fellow at Center of Excellence in Visual Intelligence under the guidance of Dr. Uma Mudenagudi and Ramesh Ashok Tabib, I have worked on Learning Representation of 2D/3D Data for better interpretation of Human like perception of 3D space.

Research Interest

Unsupervised Learning | Geometric Learning | Learning Representation | Categorization | Incremental Learning

Experience

CEVI | KLE Tech — Research Fellow
06/2021 – Present — Learning Representation of Data, Understanding the Geometry of 3D Data

SEED — Technical Consultant
10/2021 – 01/2023 — Use of Annotated of Images and Support for building in-house tools

MulticoreWare — Software Engineer
09/2020 – 05/2021 — Human Pose Estimation (2D and 3D Pose)

MulticoreWare — Project Intern
01/2020 – 08/2021 — Human Activity Recognition, Ball Tracking

IIT Delhi — Research Intern
06/2019 – 07/2019 — Categorization of Image through Clustering towards better 3D Reconstruction

IIT Delhi — Research Intern
06/2018 – 07/2018 — Relocalization of a Query Image in 3D Generated Map

Education

2020
2016
Bachelor of Engineering, Electronics and Communication
CGPA: 9.04/10 | KLE Technological University, Hubballi, India

2016
2014
Pre-Education University
Physics: 94/100 Math: 96/100 | Vidyaniketan PU Science College, Hubbali, India

2014
2011
Secondary School Education
Marks: 548/625 | Dr. G.V.J.R.E.M.H. School, Hubbali, India

Skills

Python | C | PyTorch | Technical Writing | Linux | Presentation Skills

Publications

ICCVW (e-Heritage) 2023
DeFi: Detection and Filling of Holes in Point Clouds Towards Restoration of Digitized Cultural Heritage Models
Ramesh Ashok Tabib, Dikshit Hegde, Tejas Anvekar, Uma Mudenagudi

CVPRW (StruCo3D) 2023
IPD-Net: SO(3) Invariant Primitive Decompositional Network for 3D Point Clouds
Ramesh Ashok Tabib, Nitishkumar Upasi, Tejas Anvekar, Dikshit Hegde, Uma Mudenagudi

SIGGRAPH Asia 2022
Metric KNN is All You Need
Tejas Anvekar, Ramesh Ashok Tabib, Dikshit Hegde, Uma Mudenagudi

CVPRW (IMW) 2022
DA-AE: Disparity-Alleviation Auto-Encoder Towards Categorization of Heritage Images for Aggrandized 3D Reconstruction
Dikshit Hegde, Tejas Anvekar, Ramesh Ashok Tabib, Uma Mudenagudi

CVPRW (DLGC) 2022
VG-VAE: A Venatus Geometry Point-Cloud Variational Autoencoder
Tejas Anvekar, Ramesh Ashok Tabib, Dikshit Hegde, Uma Mudenagudi

ICVGIP 2021
Modelling Nuisance Classifier Towards Class-Incremental Learning of Crowd-sourced Data
Ramesh Ashok Tabib, T Santoshkumar, Dikshit Hegde, Adarsh Jamadandi, Uma Mudenagudi

CoCoNET (VisionNet) 2020
Deep Features for Categorization of Heritage Images Towards 3D Reconstruction
Ramesh Ashok Tabib, Dikshit Hegde, T Santoshkumar, Srikar HI, Mutturaj Harage, Chaitra Desai, Ujwala Patil, Uma Mudenagudi

NCVPRIPG 2020
Relocalization of Camera in a 3D Map on Memory Restricted Devices
Deepti Hegde, Dikshit Hegde, Ramesh Ashok Tabib, Uma Mudenagudi

Co-curricular Activities

CEVI | KLE Tech 2022
Resource Person at Summer School in Visual Intelligence
Introduction to Image Processing, Machine Learning, Deep Learning, and Computer vision

ATAL FDP 2023
Resource Person at ATAL Faculty Development Program
Research Challenges and Application in Visual Intelligence (AICTE ATAL FDP) at KLE TU | CEVI

SEED 2022
Resource Person at KLETU - SAMSUNG SEED Lab
Introduction to Python and its application in AI/ML for Interns at SEED Lab | CEVI

CEVI | KLE Tech 2021
Resource Person at CEVI
Introduction to 2D/3D Human Pose Estimation and Application in Real-time.

SAMSUNG 2018-2019
Envoy for Industry Collaborative Project
SAMSUNG SRIB – KLE Technological University (SoECE)

Certifications

CVIT | IIIT H
2022

3D Vision Summer School
Introduction to 3D data processing and its application.

IIT Madras
2018 (Online)

Deep Learning
Introduction to Deep Learning

CEVI | KLE Tech
2017

Summer School in Visual Intelligence
Introduction to Image Processing, Machine Learning, Computer Vision and its application.

Projects

DST - IHDS
2018 - Present

Pipeline for preserving the Heritage sites in digital format using crowdsourced images (Sponsored)
Acquiring and processing of Images towards generation and presentation of 3D models

AICTE - RPS
2018 - 2021

Shape Representation
Inference of classification on encrypted data.

SAMSUNG SRIB
2018 - 2019

Data Encryption
Inference of classification on encrypted data.

IIT D
2018

Relocalization of an Agent in a known 3D SLAM Generated Map
Localizing image in a know 3D map using orb features and K-Means.

MulticoreWare
2020

Human Activity Recognition
Industry Internship at **MulticoreWare**

MulticoreWare
2020-2021

Human Pose Estimation
Industry Project at **MulticoreWare**

MulticoreWare
2020

Ball Tracking in Sports
Industry Internship at **MulticoreWare**

SIH | HCL
2019

Real-Time Multiple Person Recognition and Tracking for CCTV Cameras
HCL | **Smart India Hackathon (Software Edition)**

SEED
2022

Annotation Check Tool
Collaborative with **Student Ecosystem for Engineered Data (SEED)**

SEED
2022

Annotate Me Tool
Collaborative with **Student Ecosystem for Engineered Data (SEED)**

Declaration

I declare the above data is appropriate according to my knowledge.

Dikshit Hegde