

# Shanthika Naik

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## EDUCATION

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### MS in Computer Science

*International Institute of Information Technology, Hyderabad*

**CGPA: 8.86**

Hyderabad, Telangana

2020 - 2023

### BE in Computer Science

*KLE Technological University*

**CGPA: 8.75**

Hubli, Karnataka

2016 - 2020

## RESEARCH EXPERIENCE

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### VCAI, MPI Informatik

*Internship*

Currently working on exploring Deep learning methods to achieve faster and more accurate cloth simulation and overcome the limitations of classical simulation methods.

Saarland, Germany

October 2023 – March 2024

### SGI (Summer Geometric Initiative)

*Internship*

Had an opportunity to learn and collaborate with experts in geometric processing.

MIT

August 2023 – September 2023

### Samsung Research Institute

*PRISM Program*

Worked on Multiple Object Detection and Tracking on 360° Videos, in collaboration with SRI, Bangalore.

Bangalore, India

Aug. 2018 – May 2019

### IIT Delhi

*Summer Intern*

Worked on 'Federated Learning'. The purpose of the project was to explore decentralized learning, by aggregating parameter updates of different models, trained with different images for the same set of classes. This would help eliminate the need for data accumulation and centralized training, resulting in efficient utilization of memory and computational power and also to help achieve data privacy.

Delhi, India

May 2018

## PUBLICATIONS

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### Dress Me Up: A Dataset and Method for Self-Supervised 3D Garment Retargeting

*Shanthika Naik, Kunwar Singh, Astitva Srivastava, Dhawal Sirikonda, Amit Raj, Varun Jampani and Avinash Sharma.*  
ArXiv

### Discretization-Agnostic Deep Self-Supervised 3D Surface Parameterization

*Chandradeep Pokhariya\*, Shanthika Naik\*, Astitva Srivastava, Avinash Sharma.*  
In SIGGRAPH ASIA, Technical Communications, 2022.

### Deep Generative Framework for Interactive 3D Terrain Authoring and Manipulation

*Shanthika Naik, Aryamaan Jain, Avinash Sharma, and KS Rajan.*  
In IGARSS, 2022.

### FeatureNet: Upsampling of Point Cloud and its Associated Features

*Shanthika Naik, Uma Mudengudi, Ramesh Tabib, and Adarsh Jamadandi.*  
In SIGGRAPH Asia 2020 (SA '20 Posters), December 04-13, 2020.

### Multiple Object Detection in 360° Videos for Robust Tracking

*V. Vineeth Kumar, Shanthika Naik, Polisetty Sarvani, Shreya M Pattanshetti, Uma Mudengudi, Meena Maralappanavar, Priyadarshini Patil, Ramesh Tabib, and Basavaraja SVandrotti.*  
In Pattern Recognition and Machine Intelligence, 2019.

## TEACHING EXPERIENCE

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### **Teaching and Mentoring CV projects - Talentsprint**

The audience are mainly employees of the industry from various domains Systems, Applications, and Testing, trying to adapt to new ML/CV pipelines

### **Volunteer at 3D Vision Workshop, IIITH**

Handled the lab sessions focusing on implementing the fundamental concepts of 3D vision and state-of-the-art papers on human body reconstruction.

### **Volunteer at Samsung R&D, Bangalore as part of Drishti Foundation**

Handled the lab sessions as a part of the 2-day workshop and covered the basics of Image Processing. The participants were employees from the Samsung R&D office.

### **Teaching Assistant**

TA for the course *Statistical Methods in AI* at IIITH. The audience is mainly graduate and undergraduate students.

## AWARDS ACHIEVEMENTS

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### **First Place, Smart India Hackathon - 2019, Software Edition**

For the project “Real Time Multiple Person Detection, Identification and Tracking on CCTV camera footage.”

### **Research Week at Google**

Invited for a three day workshop by Google, India.

### **Reviewer at ICVGIP, 2022**

## TECHNICAL SKILLS

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**Languages:** Python, C, Java.

**Libraries and Frameworks:** PyTorch, TensorFlow, Keras, scikit-learn, tinycudann, pandas, matplotlib.

**Relevant Courses:** Image Processing, Computer Vision, Computer Graphics, Statistical Methods in AI, Optimisation Methods, Data Structures and Algorithms.

**Other Tools:** Git, Linux.