# Amogh Tiwari

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#### EDUCATION

### International Institute of Information Technology, Hyderabad (IIIT-H)

B. Tech and M.S. (by research) in Computer Science (CGPA: 8.11/10.00).

Hyderabad, India Aug 2018 – Present

#### **Publications**

- ConVol-E: Continuous Volumetric Embeddings for Human-Centric Dense Correspondence Estimation | Amogh Tiwari, Pranav Manu, Nakul Rathore, Astitva Srivastava, Avinash Sharma | Fifth Workshop on Image Matching: Local Features and Beyond at IEEE Conference on Computer Vision and Pattern Recognition (CVPRw), 2023.
- Enhanced Spatio-Temporal Context for Temporally Consistent Robust 3D Human Motion Recovery from Monocular Videos | Sushovan Chanda, Lokender Tiwari, Amogh Tiwari, Avinash Sharma, Brojeshwar Bhowmick, Hrishav Barua | Under review at WACV, 2024.
- Ground then Navigate: Language-guided Navigation in Dynamic Scenes | Kanishk Jain, Varun Chhangani, Amogh Tiwari, K. Madhava Krishna, Vineet Gandhi | IEEE International Conference on Robotics and Automation (ICRA), 2023.

#### RESEARCH EXPERIENCE

Student Researcher

May 2020 – Present

Center for Visual Information Technology (CVIT), IIIT-H (Advisor: Dr. Avinash Sharma)

Hyderabad, India

- Presently working on Temporally Consistent 3D Human Pose and Shape Estimation.
- Past Projects: Human-Centric Dense Correspondence Estimation; Appearance Agnostic 6-DoF Object Pose Estimation using Heat Diffusion; Using Event Cameras for Human Motion Capture.

Research Intern

Feb 2023 – Sep 2023

TCS Research (Mentors: <u>Dr. Lokender Tiwari</u> and Dr. Brojeshwar Bhowmick)

Kolkata, India (Remote)

 Worked on Temporally Consistent 3D Human Pose and Shape Estimation (project led to a WACV 2024 submission).

#### Computer Vision Intern

May 2022 – Aug 2022

Spatial Guide (Mentors: Mr. Akhil Raja and Mr. Yagna Narayana A.)

Hyderabad, India

• Worked on in-the-wild 6-DoF Object Pose Estimation.

#### Student Researcher

Jan 2022 – Sep 2022

Center for Visual Information Technology (CVIT), IIIT-H (Advisor: <u>Dr. Vineet Gandhi</u>)

 $Hyderabad,\ India$ 

• Worked on Visual Grounding for Autonomous Navigation (project led to an ICRA 2023 publication).

#### Student Trainee

May 2021 – Jul 2021

Center for Artificial Intelligence and Robotics (CAIR) (Mentor: <u>Dr. Arshad Jamal</u>)

Bengaluru, India (Remote)

• Developed a Visual Question Answering (VQA) model integrated with a Robotic Operating System (ROS) based environment.

#### TEACHING EXPERIENCE

- Co-held a 2-day lab session on basics of *Digital Image Processing* using *Python* and *Numpy* as part of a Computer Vision course at *Samsung Research Institute*, *Bangalore*. [Notes].
- Co-held 2 sessions at 3D Vision Summer School (3DVSS) 2023 at IIIT-H. [Notes].
- Teaching Assistant for Computer Vision (Spring '23) and Computer Systems Organization (Spring '22) courses at IIIT-H. (Responsibilities included conducting tutorials, creating & evaluating assignments, and mentoring course projects).

## OTHER ACHIEVEMENTS

- Member of winning team of *Qualcomm Innovation Fellowship (QIF) 2023*, for proposal titled "Towards Physics-inspired Template-free 4D Clothed Human Digitization from RGB Video(s)".
- Secured first position in Geo-Innovation Challenge (2022) organized by the *Multidisciplinary Center for Geoinformatics*, *Delhi Technological University*. [Solution].

# Volunteering and Extra-Curricular

- Served as reviewer for ICVGIP '22 and ICVGIP '23.
- Co-led a 50-member team for an year as the overall coordinator of *E-Cell, IIIT Hyderabad*.
- Member of college basketball team.