Amogh Tiwari

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EDUCATION

INRIA Center of the University of Grenoble Alpes — Grenoble, France
Ph.D. in Computer Science (Specialization: Robotic Vision). — *Nov 2024 - Ongoing*

International Institute of Information Technology, Hyderabad (IIIT-H) — Hyderabad, India
*B.Tech (Hons.) + M.S. by Research in Computer Science and Engineering (**CGPA**: 8.11/10.00).* — *Aug 2018 – Jul 2024*

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, **Amogh Tiwari**, Lokender Tiwari, Brojeshwar Bhowmick, Avinash Sharma, Hrishav Barua
  Arxiv, 2023.

- *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

Doctoral Researcher — Nov 2024 - Ongoing
*INRIA Center of the University of Grenoble Alpes (**Mentors:** Pia Bideau, Karteek Alahari)* — *Grenoble, France*
- Working on hand-pose estimation for object grasping and manipulation.

Student Researcher — May 2020 – Jul 2024
*Center for Visual Information Technology (CVIT), IIIT-H (**Mentor:** Avinash Sharma)* — *Hyderabad, India*
- Thesis Project: Worked on 3D Human Pose, Shape and Correspondence Estimation.
- Additional Projects: Appearance Agnostic 6-DoF Object Pose Estimation; Human Motion Capture using Event Cameras.

Research Intern — Feb 2023 – Sep 2023
*TCS Research (**Mentors:** Lokender Tiwari, Brojeshwar Bhowmick)* — *Kolkata, India (Remote)*
- Worked on Temporally Consistent 3D Human Pose and Shape Estimation.

Computer Vision Intern — May 2022 – Aug 2022
*Spatial Guide (**Mentors:** Akhil Raja and 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 (**Mentor:** Vineet Gandhi)* — *Hyderabad, India*
- Worked on Visual Grounding for Autonomous Navigation (led to ICRA 2023 publication).

Student Trainee — May 2021 – Jul 2021
*Center for Artificial Intelligence and Robotics (CAIR) (**Mentor:** Arshad Jamal)* — *Bengaluru, India (Remote)*
- Developed a Visual Question Answering (VQA) model integrated with Robot Operating System (ROS).

Teaching Experience

- Teaching Assistant for *Computer Vision* (Spring '23) and *Computer Systems Organization* (Spring '22) courses at IIIT-H. (Responsibilities: Conducting tutorials, creating & evaluating assignments, mentoring course projects).

- Practical sessions at *3D Vision Summer School (3DVSS)* - 2022, 2023, 2024 organized by IIIT Hyderabad.

- Lab session: *Digital Image Processing* using *Python* at *Samsung Research Institute, Bangalore*. [*Notes*].

- Tutorial on *LaTex* as part of the *Computing Tools* course at IIIT-H. [*Notes*].

Volunteering and Extra-Curricular

- Reviewer: ICVGIP - *2022*, *2023 2024*.

- Coordinator: *E-Cell, IIIT Hyderabad*. Co-led a team of around 50 members.

- Sports: Member of IIIT-H basketball team; Frequent participant at 10K races.