Shehreen Azad

Shehreen.Azad@ucf.edu Google Scholar LinkedIn

Education

University of Central Florida

Aug'22 - Dec'26 (Expected)

Doctor of Philosophy, Computer Science. Advisor: Dr Yogesh Singh Rawat.

GPA: 3.91/4.0

Disseration Committee: Dr Yogesh Singh Rawat, Dr Mubarak Shah, Dr Chen Chen, Dr Soheil Sabri

Experience

Graduate Research Assistant

Aug'23 - Present

Center for Research in Computer Vision, UCF. Advisor: Dr Yogesh Singh Rawat

• Video understanding and multimodal reasoning

Major Research Projects

Video Understanding and Multimodal Reasoning

Jan'23 - Present

- Streaming long-form video understanding (*Ongoing*): Developing a memory-augmented, task-agnostic multimodal framework for efficient temporal reasoning and on-time responses.
- Hierarchical Q-Former for long-form video understanding (CVPR'25): Proposed a memory-augmented, task-aware multimodal framework to improve computational efficiency and temporal modeling.
- Disentangling Q-Former for activity-biometrics (ICCV'25 Highlight): Designed a multimodal framework for activity-aware person identification through language-guided motion-centric temporal modeling.
- Activity-Biometrics: Person identification from daily activities (CVPR'24): Introduced the novel task of activity-aware person identification by linking actions to biometric traits through motion-centric temporal modeling.
- Benchmarking visual perception in Multimodal Large Language Models (MLLMs): Proposed diagnostic benchmarks to evaluate: Depth and height perception (CVPRW'25), Compositional reasoning (CVPRW'24), and Distribution shifts (CVPRW'24) in MLLMs.

Funded Projects

- 1. Biometric Recognition and Identification at Altitude and Range (BRIAR) by IARPA.

 Advisors: Dr Mubarak Shah, Dr Yogesh Singh Rawat

 Jan'23- June'24
 - Served as the team lead for the activity-aware recognition substream of the program.
 - Secured 2nd rank out of 7 teams in activity-aware recognition.
- 2. ART: From Research to Impact, Building the Translational Capacity of UCF's Innovation Ecosystem by NSF. Advisor: Dr Yogesh Singh Rawat

 Aug'24- Present
 - $\circ\,$ Leading the development of a multimodal reasoning framework for streaming videos.
 - ∘ Completed "NSF Innovation Corps (I-Corps™) Lean Startup at UCF" training as part of the program.

Patent

1. **Shehreen Azad**, Yogesh S Rawat. "Activity-Biometrics: Person Identification from Daily Activities." US Patent Application No.: 63/685,014, 2024, Reference no.: 2024-117-01, (Pending).

Additional Credentials

- 1. Languages, Frameworks: C/C++, Python, PyTorch, Keras, TensorFlow, OpenCV, Scikit. Tools: Git, VS Code, Linux, LATEX
- 2. Awards and Honors: UCF CS Ranking Incentive Award ('24, '25); ICCV Broadening Participation Award ('25); CVPR Diversity, Equity and Inclusion Award ('24); UCF Presentation Fellowship ('24, '25); UCF ORCGS Doctoral Fellowship ('23).
- 3. Reviewer: CVPR'25, ICCV'25, NeurIPS'25, BMVC'25, CVPR MMFM Workshop'24,'25, ICPR'24.
- 4. Teaching Assistant: CAP 5725: Computer Graphics (Fall'22), CAP 6721: Ray Tracing (Spring'23).
- 5. Others: Treasurer of Bangladesh Student Association at UCF ('23-'24)