Welcome!

I am Shivvrat Arya, but feel free to call me Shiv (pronounced as [sh ih v]). I am currently engaged in a collaborative research projects under the guidance of Dr. Vibhav Gogate and Dr. Yu Xiang, funded by the DARPA Perceptually-Enabled Task Guidance (PTG) grant. Our goal is to develop Artificial Intelligence (AI) technology that guides users in the performance of a wide range of cognitively challenging physical tasks. This initiative draws upon the latest breakthroughs in machine perception, automated reasoning, and augmented reality. Our primary research focus is on activity recognition within Egocentric Datasets such as Epic Kitchens, and Multi-Label Datasets including Charades, AVA, Tacos, and Wetlab.

During my tenure at the Indian Institute of Technology Indore (IITI) as a research intern, my research revolved around leveraging non-iterative and sophisticated neural network architectures for multi-label classification challenges. This work has led to two journal submissions and one conference paper acceptance. We benchmarked our approach against 15 diverse datasets, including yeast, scene, BibTeX, emotions, Enron, medical, corel5k, bookmarks, delicious, mediamill, and the rcv1v2 series, using metrics such as Hamming Loss, Ranking Loss, One Error, Coverage, and Average Precision. Our proposed algorithm was compared with state-of-the-art methods like Rank-SVM, ELMOnline, MLKN, BPMLL, and ELM.

About me

I am a Ph.D. candidate in the Department of Computer Science at The University of Texas at Dallas, where I am honing my research skills to address complex problems in Computer Science and contribute to the advancement of innovative technologies. I am always on the lookout for challenging opportunities that push the boundaries of my knowledge and allow me to acquire new skills.

In addition to my Ph.D., I am also pursuing an M.S. degree in Computer Science at UT Dallas, working closely with Dr. Vibhav Gogate and Dr. Yu Xiang. I hold a B.Tech. Degree in Computer Science and Engineering from the Indian Institute of Information Technology Vadodara.