STATEMENT OF INTEREST

I am Annapurna Shobitha from Vellore Institute of Technology, Vellore. I am currently pursuing Mtech integrated in CSE specializing in Data Science 5th year(final year). I am writing to express my keen interest in the PhD/Postdoctoral positions available at the Hasti Lab at the University of Central Florida. Your research focus on Large Language Models, Generative AI, and Multimodal Learning aligns perfectly with my academic and professional aspirations.

I have been captivated by the transformative potential of AI and its ability to revolutionize various industries. The prospect of working on innovative hybrid modelling frameworks and contributing to cutting-edge research in this field is incredibly exciting. I am particularly drawn to the opportunity to collaborate with industry experts and tackle real-world challenges.ld challenges.

My academic background in Data Science has equipped me with a strong foundation in Data analytics, Natural Language Processing, AI, Machine Learning, Convolutional Neural Networks, and Computer Vision. I have a deep-rooted passion for understanding the intricacies of language, vision, and their interplay. I have done a few projects using the skills specified above. Following is the briefing about the projects I have worked on:

- Implementation of Image Processing & Deep Learning Techniques in Dementia Detection

  I have developed this code to input MRI scans from the user side and by using deep learning techniques I have helped the user identify if he is affected by dementia or not. I have also used computer vision and provided a facility where we can adjust the light and sharpness of the image so that it can be used easily for further investigations.

- Newspaper Summarizer

  Initially, the user selects the newspaper for which he wants a summary. First, the code identifies the language of the newspaper selected. Later it classifies topics and sub-topics so that we can differentiate each news. Later the code summarises each of the classifications (topic) and outputs it to the user. I have used the Natural Language Processing (NLP) technique to develop this code.

- Evaluation of Descriptive Answers using AI and Plagiarism Checking

  Using Open CV and AI techniques I have developed code to read the descriptive answers and mark them after checking the plagiarism. The first step is the convert the handwritten format of answers to the digital version. This conversion of text is done using the OCR technique. Then later using classification we identify and verify the keywords. According to the weightage, the marks are given to each keyword and answer. Using the cosine technique the plagiarism is checked.

I am currently working on a project where I will be developing a code through which we will be able to identify if a healthy person is going to be affected by diseases like Knee Arthritis

and PCOS. I will be using a technique called Next Generation Sequencing (NGS). My main aim is to develop a more precise code and identify the disease for a longer period. The present code can detect 1 to 2 years before the actual occurrence of disease. I want my code to detect it even more before.

I am confident that my skills, enthusiasm, and dedication will make me a valuable asset to your research team. I am eager to contribute to the Hasti Lab's mission of pushing the boundaries of AI for real-world impact.

I am excited about the opportunity to join a dynamic and collaborative research environment. I believe that my skills and passion for AI research will make me a valuable member of the Hasti Lab team. Thank you for considering my application.