

Good Morning

Sir/Ma'am

I am Nandita Singh, a final-year student at Vellore Institute of Technology (VIT), pursuing a degree in Electronics and Computer Engineering. With a strong academic background, I have developed a keen interest in the fields of Machine Learning and Artificial Intelligence. Ever since I learned about the SURI Summer Program and its diverse offerings, particularly the AI/ML projects, I have been deeply motivated to participate and contribute. The program's emphasis on mentorship under distinguished professors makes it a unique platform to gain hands-on experience and grow in my areas of interest.

Throughout my academic journey, I have undertaken projects that reflect my passion for this domain. One notable project was **Equity Research Analysis** using large language models and the LangChain framework. Through this, I gained hands-on experience with Python and advanced libraries such as FAISS (Facebook AI Similarity Search), Sentence Transformers, and techniques for converting textual data into vector embeddings. These projects not only honed my technical skills but also deepened my understanding of practical AI/ML applications.

In addition to project work, I have completed the **Essentials of Data Analytics** course, where I learned about tools like R Studio and techniques for data compression and processing. This course has further equipped me with the foundational knowledge required for advanced research and problem-solving in data-driven fields.

Participating in the SURI Summer Program would be an invaluable opportunity to expand my skills, collaborate on cutting-edge AI/ML projects, and contribute meaningfully under the guidance of experienced mentors. I am eager to leverage this platform to gain hands-on experience, refine my technical expertise, and explore innovative applications of AI and Machine Learning.

I am enthusiastic about the prospect of working with outstanding professors and like-minded peers, and I believe this experience will significantly contribute to my personal and professional growth. Thank you for considering my application.