## Cover Letter

Vedant S. Joshi, 3869 Miramar Street, La Jolla, San Diego, California - 92092

Dear Madam / Sir,

I am a first-year Masters in Computer Science & Engineering student at UC-San Diego with a passion for enhancing the generalization and training efficiency of A.I. models for real world applications. I am excited to apply my research interests and industry experience to your dynamic team.

In the field of computer vision, I have had professional experience working as a Vision and Imaging Engineer at Tonbo Imaging. In this role, I had the privilege of contributing to projects that aimed to enhance the spatial awareness of automobiles on Indian roads. My responsibilities included the development of robust vision models, which played a crucial role in object localization during both day and night conditions. I implemented innovative feature fusion strategies between the RGB and IR domains to improve model accuracy significantly. Additionally, I worked on self-supervised depth map estimation and open-world object detection, ensuring that our solutions were not only accurate but also adaptable to diverse scenarios.

Before joining Tonbo Imaging, I served as a Research Data Scientist at Vedantu, where I worked closely with Dr. Sivanagaraja Tatinati on pioneering AI solutions for the EdTech sector. My work encompassed various domains, including computer vision, natural language processing, and user-centric tabular data analysis. The core objective of my research at Vedantu was to harness the true potential of self-supervision to build more accurate and efficient models. This research initiative was aimed at meeting the unique needs of students and stakeholders by creating label-efficient AI solutions.

Thank you for considering my application. I have attached my resume for your reference, which provides a more detailed overview of my qualifications and experiences. I look forward to the possibility of joining your team.

Sincerely,

Vedant S. Joshi