

10 April 2023

Dear Hiring Manager, Magic Leap,

I am very excited to apply for the AI Researcher Summer internship at Magic Leap. After a thorough read about AAIR and what it stands for, I felt that working at Magic Leap would perfectly align with my goal of busting into the CV industry and getting hands-on industry experience with state-of-the-art, large generative models! I firmly believe that the next stage in human civilization is the seamless integration of AR into the real world. Further, after scanning the job description, I realized the immense overlap between my skills and knowledge and what you are looking for in a potential intern.

To elaborate, I am a first-year master's student at UCSD majoring in Computer science. I have had almost one year of Computer Vision work in coursework, projects, and hackathons. My most recent endeavor is my project about generating copyrighted free music tones from simple text prompts, which will be used to detect multiple genres. Finally, it will be fed into a GAN pre-trained on copyright-free music tones to be ultimately used by the end user as they wish.

Further, during my undergrad, the achievement I am most proud of is my project Divya Drishti aimed at helping Visually Impaired People (VIPs) with their daily mundane tasks, making them independent even in rural areas, wherein I led a team of 4 to create a totally independent Raspberry Pi based IOT device, which can be connected to by a free android application. The easy-to-use UI of the application allowed VIPs to give voice commands to the Raspberry, based on which it would use the smartphone's camera to perform various tasks like currency detection and totaling, object detection, text reading & summarization, color detection, etc., depending on the command. After some back and forth with the National Association of Blind, India, this project enabled me to utilize CV to its maximum potential. We achieved a 400% cost reduction compared to the publicly commercialized alternative (OrCam).

Additionally, I was also part of a team of 6, wherein we designed a cloud-based application that would automate the existing parking system by auto-detecting number plates on Cars using existing CCTV Cameras utilizing a combination of YoloV4 object detection and Tesseract OCR on detected bounding box. Further, as part of my coursework in Computer Vision under Professor Ben Ochoa, I learned the fundamentals of Computer Vision principles that I have already been using via APIs and library calls and built famous techniques such as edge detection, epipolar rectification using corner detection, etc. I further used this knowledge in my semantic segmentation project, wherein I trained a Deep Learning model to predict which pixel belonged to which class!

I am confident that my skills and experience make me a strong candidate to be at Magic Leap, and I am eager to grow and learn from the Best-in-class teams at AAIR.

Thank you for your time and consideration. I would appreciate the chance to discuss further my qualifications and how I can contribute to something that benefits the human race! Please feel free to contact me at your convenience by email (jjhaveri@ucsd.edu) or by telephone (+1 858 214 9192).

Sincerely,

Jay Jhaveri