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Letter of Recommendation

This letter of recommendation concerns Reuben Johann Rosen, who graduated with a Bachelor of Technology in Electrical and Electronics Engineering from Vellore Institute of Technology in the Summer of 2022.

Reuben has successfully completed his undergraduate capstone project at the Naval Physical and Oceanographic Laboratory (NPOL) of Defence Research and Development Organization (DRDO), Ministry of Defence, Government of India, spanning five months, from January 2022 till May 2022.

I was his research advisor in the domain of Artificial Intelligence and Signal Processing. I supervised his research on the versatility of Vector Quantization for speaker detection/identification. I have observed Reuben to be a determined, hardworking, resilient young researcher. He has worked tirelessly to improve his research model's accuracy. This project was even extended in its application to detect the presence of Chronic Obstructive Pulmonary Disorder (COPD) in patients by their heartbeat audio signals, with a high prediction accuracy of 90%. This is leading to a book chapter publication in the 'Applications of Artificial Intelligence and Machine Learning in Healthcare' by the Institute for Engineering Research and Publication, a SCOPUS indexed publication.

I see in him the drive and passion for research. In spite of the difficulty in finding a large sample data set for the COPD detection study, Reuben persevered and succeeded in finding a few relevant datasets online, that gave him a high accuracy. He even reached out to various doctors and health personnel to find the appropriate audio signals but due to the pandemic, this form of data collection was difficult.

He is eager to expand his technical skill set; he is a co-operative and diligent learner, I learnt that he is concurrently doing an online course on a programming language (REACTJS) for APP and Web development with his capstone project.

Reuben is a punctual student who successfully met all deadlines he was given. During the span of his capstone project, he faced three 'progress review sessions' to both internal and external panel members who interviewed his methodology and results. He fielded the questions successfully to the satisfaction of the panellists.

To conclude, Reuben's dedication to the tasks at hand and zest for knowledge make him an ideal student for your program. I believe that he will be an asset to your university, and I strongly recommend him for admission to your esteemed university. With his motivation and devotion, he would contribute significantly to your institution and achieve his career goals. I can be contacted for any further assistance.

Yours truly,

A handwritten signature in blue ink, appearing to read "MJK".

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