To: Decision Committee of Sparbanksstiftelsen Kronan Scholarship

Dear Committee Members,

I am pleased to write in support of Yaswanth Rahul Yarlagadda and Shaheer Dudekula, whose bachelor thesis I had the privilege of supervising at Blekinge Institute of Technology in 2025. Their project, titled *"3D Pose Estimation and Time-Series Classification for Distinguishing Normal and Fatigued States"*, reflects rigorous research with strong practical relevance.

The primary goal of their thesis was to develop a video-based system to detect physical fatigue using only consumer-grade smartphones, offering a low-cost and non-intrusive alternative to traditional motion-capture systems. This is a timely and impactful contribution, particularly in the context of accessible health-monitoring technologies.

Technically, their solution integrates pose estimation and machine learning in a well-designed pipeline. They used existing deep learning frameworks to extract human motion data from multi-angle video recordings, reconstructed 3D body poses, and computed kinematic features such as joint velocities and angles. These features were then used to train models capable of distinguishing between normal and fatigued movement patterns. Their research not only showcases solid technical implementation but also highlights the potential for real-world deployment in areas such as occupational safety, sports, and rehabilitation.

Yaswanth and Shaheer worked independently and collaboratively, showed strong analytical and coding skills, and consistently delivered high-quality results. They were receptive to feedback and demonstrated problem-solving abilities throughout the project.

For these reasons, I strongly support their application for the Sparbanksstiftelsen Kronan Scholarship. Their thesis exemplifies technically sound and socially relevant innovation, which aligns well with the purpose of this award.

Kind regards,
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