

CV PROJECT WEEKLY UPDATE

Week 2: February 24, 2025 – February 28, 2025

Work Done:

- Continued comprehensive review of relevant academic papers to explore emerging metrics in the field.
- Identified new movement analysis metrics that could enhance our methodology:
 - **Speed of Movement:** Instead of only considering joint angles (e.g., knee bend), we analyzed how quickly joints like the knees and hips move and accelerate. Faster, smoother movements often indicate a well-conditioned athlete, while slower or inconsistent movements may suggest fatigue.
 - **Smoothness of Movement (Jerk):** This metric measures how fluid an athlete's motion is. Jerky or uneven movement patterns may indicate a lack of coordination or the onset of fatigue, which could be critical in assessing performance and injury risk.
 - **How Quickly They Recover After Landing:** We can measure how long it takes for an athlete to settle into a stable position after landing from a jump. A quick recovery indicates better readiness.

Planned Activities for Next Week:

- Continue the investigation of new metrics to further enhance project methodologies.