**CSE 541 Computer Vision**

**Section 1**

**Group 8**

**Project Number 7: Identification of lower extremity injuries from jump-landings videos: A Deep Learning Approach**

**Weekly Report**

**Week 2**

**Introduction:**

Sports like basketball and football involves rapid high-intensity movements which require high stamina, fitness and flexibility. As a result, there are chances of getting lower extremity injuries due to incorrect posture as a result of altered neuromuscular control while playing. Therefore, for early identification of such movements can prevent serious injuries. Our aim is to develop a robust model which helps in identifying such movements.

**Progress Summary:**

We did yet another literature survey, by reviewing recent research paper, The Landing Error Scoring System (LESS) Is a Valid and Reliable Clinical Assessment Tool of Jump-Landing Biomechanics: The JUMP-ACL Study [1]. Here, we explored the measurement of error score, particularly the LESS method. It was observed that Subject with high LESS score displayed significantly different lower extremity kinematics and kinetics compared with subjects with low LESS scores.

**Next Steps:**

We plan on exploring the dataset and identifying the relevant data for building the model.

**Appendix:**

1. The Landing Error Scoring System (LESS) Is a Valid and Reliable Clinical Assessment Tool of Jump-Landing Biomechanics: The JUMP-ACL Study

Padua, D., Sharma, S., Thigpen, C.A., Boling, M. C., Garret, W., Beutler, A. I., & Marshall, S.W. (2020). https://journals.sagepub.com/doi/10.1177/0363546509343200