

SPRINT RETROSPECTIVE 2

| What Went Well | What Could Be Improved | Action Items / Improvements for Next Sprint |
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| The integration of Transfer Learning with LSTM enhanced the model's classification accuracy. | The prototype user interface for real-time KOA severity prediction is still in the planning phase. | Develop UI for real-time gait prediction and visualize results interactively. |
| Successful implementation of frame extraction and keypoint detection using MediaPipe for all subjects. | Although model metrics are generated, there is limited visualization of confusion matrices and gait keypoint movements. | Add real-time gait animation for pose comparison between normal and KOA cases. |
| Added dropout and learning rate scheduler to minimize overfitting issues from Sprint 1 ,Model now performs more consistently across training and validation sets. | Functional testing is manual; we could automate the frame-to-keypoint-to-prediction pipeline for faster experimentation. | Implement automated testing scripts for key components (frame extraction, keypoints, inference). |
| Clear communication and defined task ownership using MS Planner improved productivity and time tracking. | Some severity classes have fewer samples, which may affect prediction confidence. | Explore data augmentation techniques to balance class distribution and improve model robustness. |