## Preprocessing

- Bad frame detection
- z-score Marker Data

## Training

- WaveNet or LSTM model
- Trained to predict frame given previous 9 frames as input
- Train multiple models

## Ensemble

- Collect multiple models
- Take the median prediction from the members of the ensemble

## Imputation

- Feed ensemble predictions back into the model to impute long sequences.
- Impute bad frames and those for which the prediction deviates from the measured value by a distance threshold.
- Combine forward and reverse predictions with weighted averaging.

## Postprocessing

- Calculate the total jerk across all markers at each frame and identify remaining bad frames using a threshold.
- Smooth the output traces with a median filter.