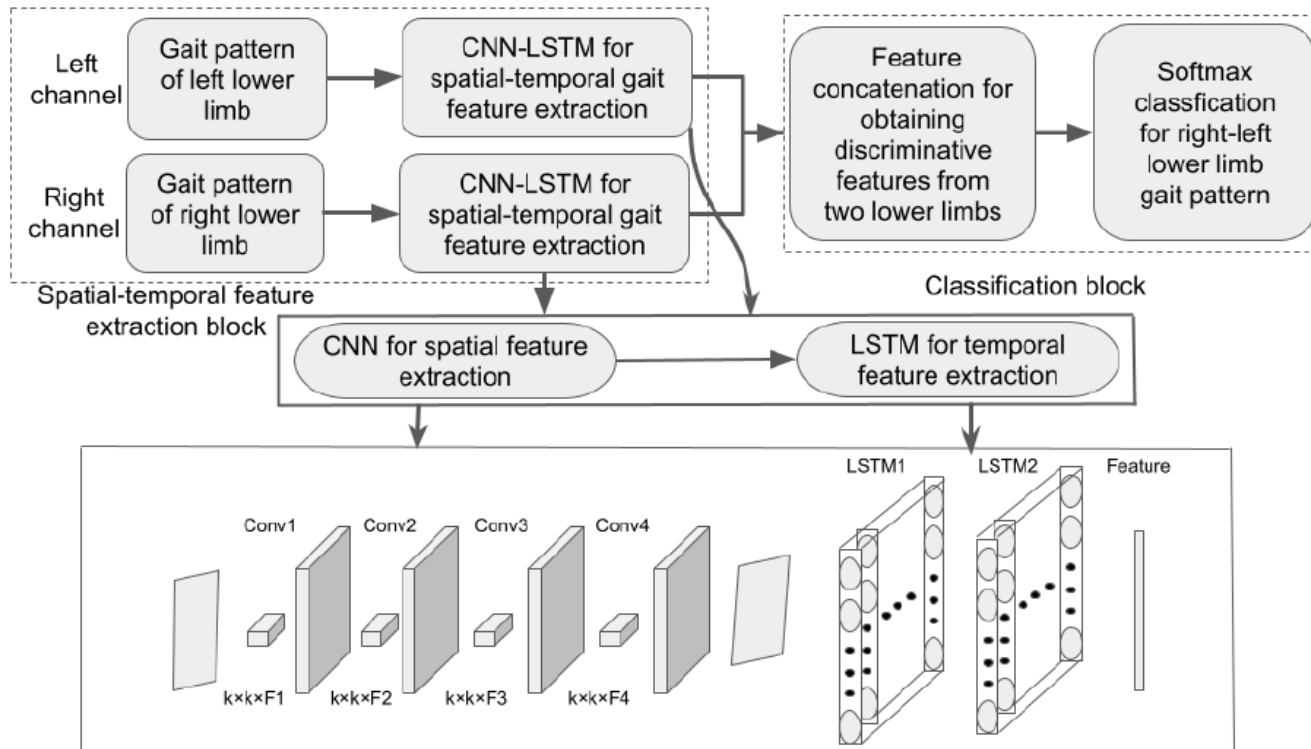


Analyzing The Effect of Joint Movement Limitation on Asymmetry Using K-Means Clustering Method

Group Number : 4
Alireza Amiri Ali Bagheri Nejad
Fall 2023

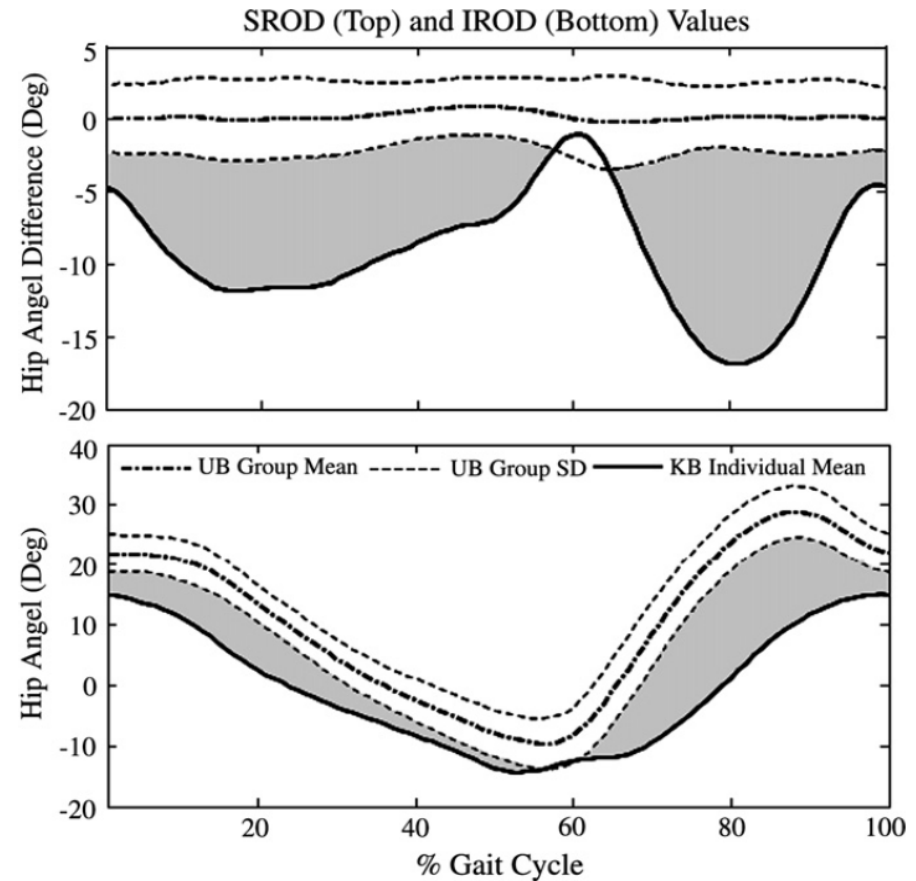
Early Identification of Gait Asymmetry Using a Dual-Channel Hybrid Deep Learning Model Based on a Wearable Sensor



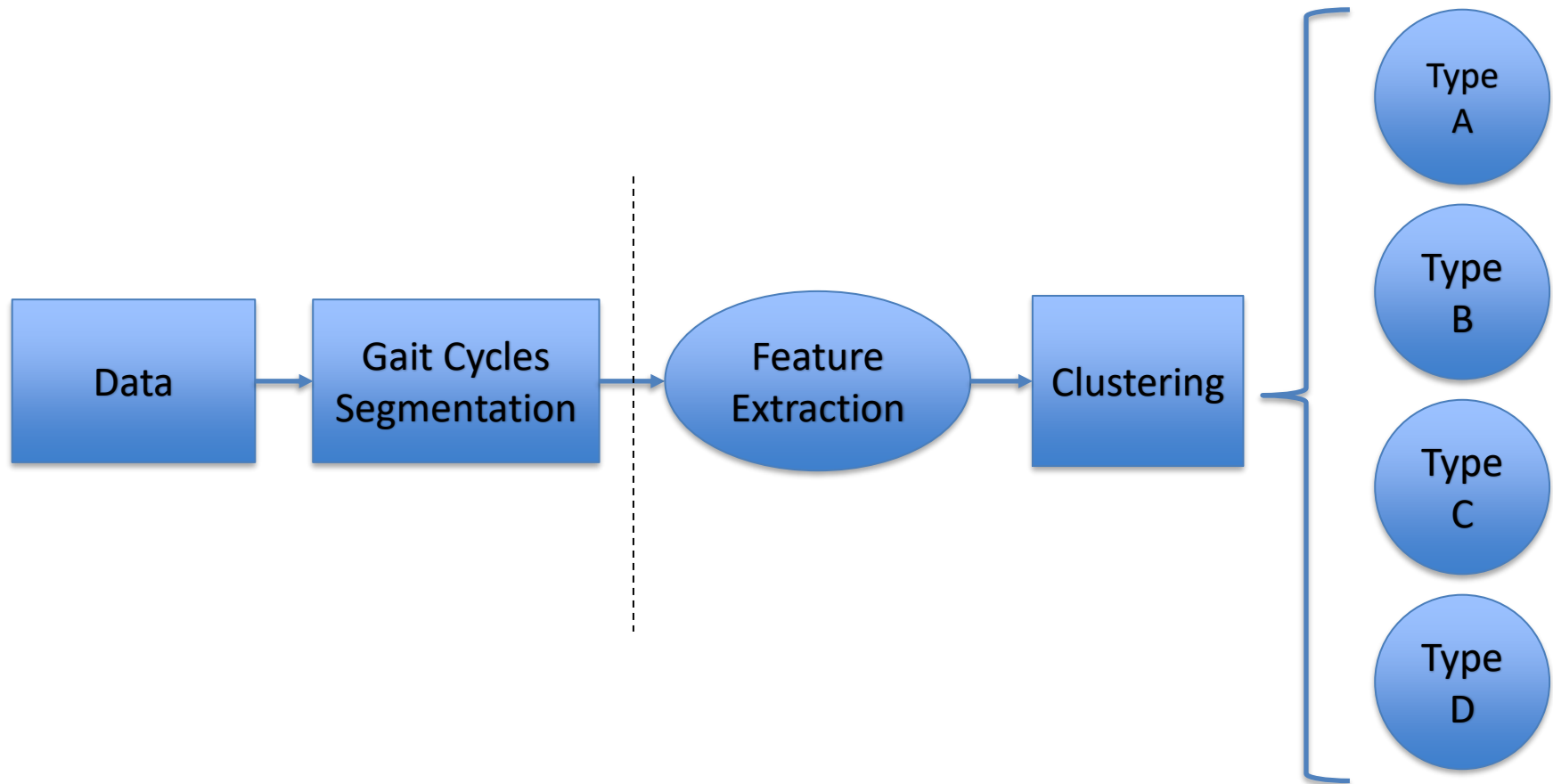
A new approach to detecting asymmetries in gait

$$SI = \frac{P_A - P_U}{0.5(P_A + P_U)} 100\%$$

- Range Of Motion
- Step Length
- Step Width
- Foot Rotation
- Single Leg Support Time

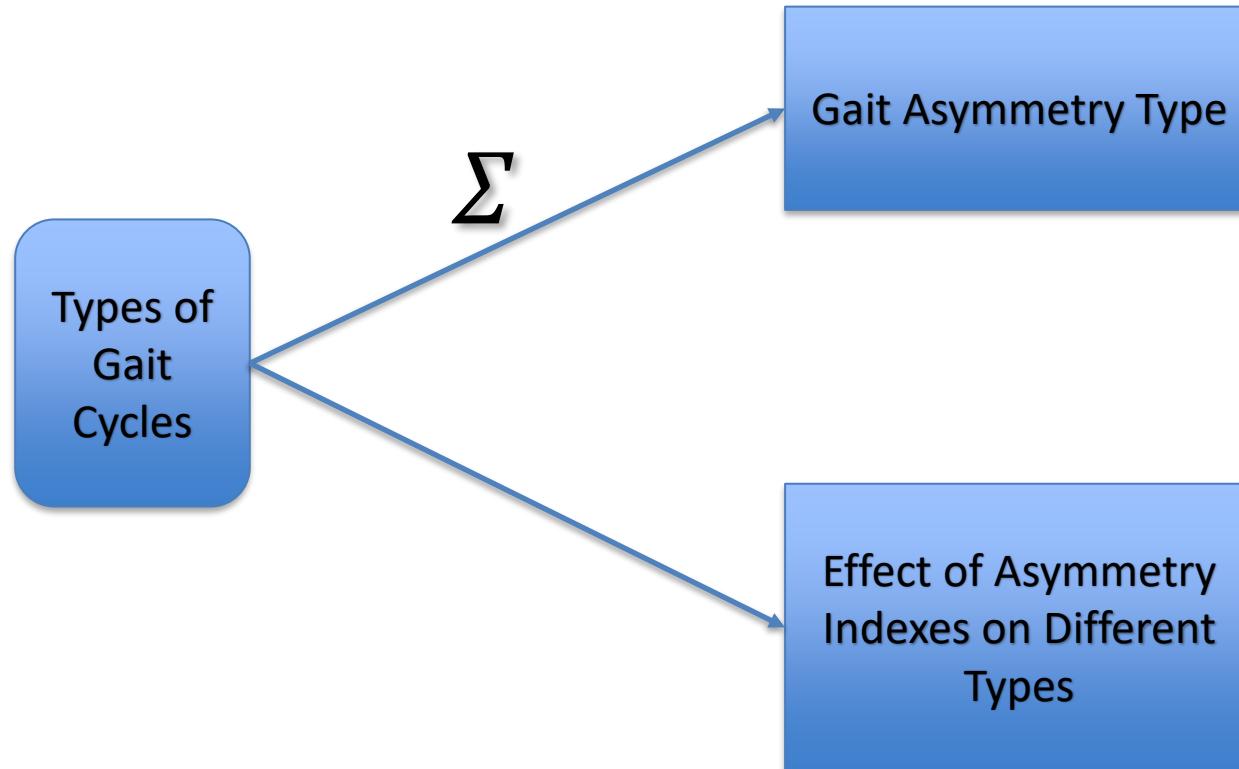


Clustering Method



[Reference]

Expected Result



[Reference] : (Shorter et al., 2008; Wu et al., 2023)