In the paper, we calculated 130 features from the gait data. Table 1 lists all the features and their definitions. Please note that Table 1 combines some features for brevity, so the number of rows is not 130.

**Table 2: Full list of features**

|  |  |
| --- | --- |
| Feature | Description |
| A\_DB | The affected side double support phase time ratio |
| A\_SB | The affected side single support phase time ratio |
| U\_DB | The unaffected side double support phase time ratio |
| U\_SB | The unaffected side double support phase time ratio |
| A\_AreaComp\_F | Max of the forefoot plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_M | Max of the midfoot plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_H | Max of the hindfoot plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_FH | Max of the front half of the foot plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_BH | Max of the posterior half of the foot plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_L | Max of the left plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_R | Max of the right plantar pressure to body weight ratio in affected side |
| A\_AreaComp\_S | Sum of plantar pressure to body weight ratio in affected side |
| A\_TimeComp\_S | Max plantar pressure occurrence time in affected side |
| A\_AreaComp\_L2R | Max of the left plantar pressure to max of the right plantar pressure ratio in affected side |
| A\_SensorComp\_12 | Sum of plantar pressure of sensor 1 and sensor 2 to body weight ratio in affected side |
| A\_SensorComp\_23 | Sum of plantar pressure of sensor 2 and sensor 3 to body weight ratio in affected side |
| A\_SensorComp\_34 | Sum of plantar pressure of sensor 3 and sensor 4 to body weight ratio in affected side |
| A\_SensorComp\_45 | Sum of plantar pressure of sensor 4 and sensor 5 to body weight ratio in affected side |
| A\_SensorComp\_56 | Sum of plantar pressure of sensor 5 and sensor 6 to body weight ratio in affected side |
| A\_SensorComp\_67 | Sum of plantar pressure of sensor 6 and sensor 7 to body weight ratio in affected side |
| A\_SensorComp\_78 | Sum of plantar pressure of sensor 7 and sensor 8 to body weight ratio in affected side |
| A\_CopLength | Cop trajectory length in affected side (y axis) |
| A\_StepLength | Step length of affected side |
| A\_CopLengthS | Standard deviation of Cop trajectory in affected side (y axis) |
| A\_CopWidth | Cop trajectory width in affected side (x axis) |
| A\_CopWidthS | Standard deviation of Cop trajectory in affected side (x axis) |
| U\_AreaComp\_F | Max of the forefoot plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_M | Max of the midfoot plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_H | Max of the hindfoot plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_FH | Max of the front half of the foot plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_BH | Max of the posterior half of the foot plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_L | Max of the left plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_R | Max of the right plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_S | Sum of plantar pressure to body weight ratio in unaffected side |
| U\_AreaComp\_L2R | Max of the left plantar pressure to max of the right plantar pressure ratio in unaffected side |
| U\_TimeComp\_S | Max plantar pressure occurrence time in unaffected side |
| U\_SensorComp\_12 | Sum of plantar pressure of sensor 1 and sensor 2 to body weight ratio in unaffected side |
| U\_SensorComp\_23 | Sum of plantar pressure of sensor 2 and sensor 3 to body weight ratio in unaffected side |
| U\_SensorComp\_34 | Sum of plantar pressure of sensor 3 and sensor 4 to body weight ratio in unaffected side |
| U\_SensorComp\_45 | Sum of plantar pressure of sensor 4 and sensor 5 to body weight ratio in unaffected side |
| U\_SensorComp\_56 | Sum of plantar pressure of sensor 5 and sensor 6 to body weight ratio in unaffected side |
| U\_SensorComp\_67 | Sum of plantar pressure of sensor 6 and sensor 7 to body weight ratio in unaffected side |
| U\_SensorComp\_78 | Sum of plantar pressure of sensor 7 and sensor 8 to body weight ratio in unaffected side |
| U\_CopLength | Cop trajectory length in unaffected side (y axis) |
| U\_CopLengthS | Standard deviation of Cop trajectory in unaffected side (y axis) |
| U\_CopWidth | Cop trajectory width in unaffected side (x axis) |
| U\_CopWidthS | Standard deviation of Cop trajectory in unaffected side (x axis) |
| U\_StepLength | Step length of unaffected side |
| A\_AnkleROM | Range of motion of ankle joint in affected side |
| A\_KneeROM | Range of motion of knee joint in affected side |
| A\_HipROM | Range of motion of hip joint in affected side |
| U\_AnkleROM | Range of motion of ankle joint in unaffected side |
| U\_KneeROM | Range of motion of knee joint in unaffected side |
| U\_HipROM | Range of motion of hip joint in unaffected side |
| AreaComp\_U2A | Max of the unaffected side plantar pressure to Max of the affected side plantar pressure ratio |
| AF\_x(/y/z)\_ACCave | Average of X(/Y/Z) axis acceleration of foot IMU in affected side |
| AF\_x(/y/z)\_ACCvar | Variance of X(/Y/Z) axis acceleration of foot IMU in affected side |
| AF\_x(/y/z)\_ACCrms | Root mean square of X(/Y/Z) axis acceleration of foot IMU in affected side |
| AF\_x(/y/z)\_ACCeny | Energy of X(/Y/Z) axis acceleration of foot IMU in in affected side |
| AF\_x(/y/z)\_ACCabs | Mean absolute value of X(/Y/Z) axis acceleration of foot IMU in affected side |
| AS\_x(/y/z)\_ACCave | Average of X(/Y/Z) axis acceleration of shank IMU in affected side |
| AS\_x(/y/z)\_ACCvar | Variance of X(/Y/Z) axis acceleration of shank IMU in affected side |
| AS\_x(/y/z)\_ACCrms | Root mean square of X(/Y/Z) axis acceleration of shank IMU in in affected side |
| AS\_x(/y/z)\_ACCeny | Energy of X(/Y/Z) axis acceleration of shank IMU in affected side |
| AS\_x(/y/z)\_ACCabs | Mean absolute value of X(/Y/Z) axis acceleration of shank IMU in in affected side |
| UF\_x(/y/z)\_ACCave | Average of X(/Y/Z) axis acceleration of foot IMU in unaffected side |
| UF\_x(/y/z)\_ACCvar | Variance of X(/Y/Z) axis acceleration of foot IMU in unaffected side |
| UF\_x(/y/z)\_ACCrms | Root mean square of X(/Y/Z) axis acceleration of foot IMU in unaffected side |
| UF\_x(/y/z)\_ACCeny | Energy of X(/Y/Z) axis acceleration of foot IMU in unaffected side |
| UF\_x(/y/z)\_ACCabs | Mean absolute value of X(/Y/Z) axis acceleration of foot IMU in in unaffected side |
| US\_x(/y/z)\_ACCave | Average of X(/Y/Z) axis acceleration of shank IMU in unaffected side |
| US\_x(/y/z)\_ACCvar | Variance of X(/Y/Z) axis acceleration of shank IMU in unaffected side |
| US\_x(/y/z)\_ACCrms | Root mean square of X(/Y/Z) axis acceleration of shank IMU in in unaffected side |
| US\_x(/y/z)\_ACCeny | Energy of X(/Y/Z) axis acceleration of shank IMU in unaffected side |
| US\_x(/y/z)\_ACCabs | Mean absolute value of X(/Y/Z) axis acceleration of shank IMU in in unaffected side |
| P\_x(/y/z)\_ACCave | Average of X(/Y/Z) axis acceleration of pelvis IMU in in unaffected side |
| P\_x(/y/z)\_ACCvar | Variance of X(/Y/Z) axis acceleration of pelvis IMU in in unaffected side |
| P\_x(/y/z)\_ACCrms | Root mean square of X(/Y/Z) axis acceleration of pelvis IMU in in unaffected side |
| P\_x(/y/z)\_ACCeny | Energy of X(/Y/Z) axis acceleration of pelvis IMU in in unaffected side |
| P\_x(/y/z)\_ACCabs | Mean absolute value of X(/Y/Z) axis acceleration of pelvis IMU in in unaffected side |