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| Reference Papers | Author | Objective | Algorithms | Hardware | Advantages | Dataset | Participants |
| The Classification of Minor Gait Alterations Using Wearable Sensors and Deep Learning | Alexander Turner  Et al | Diagnosing gait abnormalities in patients | LSTM and CNN | F-Scan | Non-invasive methodology and  unprocessed dynamic gait data | Live Data  (Tekscan, Boston, USA) | 12 |
| A Multi-Modal Gait Analysis-Based Detection System of the Risk of Depression | Wei Shao et al | Detecting people at risk of depression | CNN and LSTM | Kinect cameras | More effective and convenient | Live Data  (Institutional Review Board of Lanzhou University)  -Skeleton and RGB dataset | 200 |
| Anomalous Gait Feature Classification From 3-D Motion Capture Data | Suil Jeon et al | Detecting anomalous gait features aids in the diagnosis and treatment of gait-related diseases | FNN | Camera | Relatively high accuracy  highly practical for clinical applications | Live Data  (Motion Analysis Co., Santa Rosa, California) | 500 |
| Continuous Gait Phase Estimation Using LSTM for Robotic Transfemoral Prosthesis Across Walking Speeds | Jinwon Lee et al | User gait phase estimation for lower-limb robotic assistive devices | LSTM | Two 9-axis IMUs | S1-more accurate heel-strikes  S2-additional heel force data | Live Data  (BeagleBone Black, Texas Instruments, USA) | - |
| IMU-Based Gait Normalcy Index Calculation for Clinical Evaluation of Impaired Gait | Lei Wang et al | Clinical gait evaluation | Gait Variable Selection and Estimation | Two IMUs (InvenSense MPU-6050) | Great potential in the evaluation of other kinds of impaired gait | Offline Data  (Sd Card) | - |
| Recognizing Human Activity in Free-Living Using Multiple Body-Worn Accelerometers | Elliott Fullerton et al | Recognizing human activity | Decision tree classifiers, Support vector machines  Nearest Neighbour methods | Inertial sensors containing a tri- axial accelerometer | Pre-processing algorithms had no aid on recognition accuracy | Recorded Data | 10 |
| SAIL: A Deep-Learning-Based System for Automatic Gait Assessment From TUG Videos | Yanhong Wang et al | perform clinic-level diagnosis without any wearable devices and professional doctors | SAIL(skeleton detector, parameter extractor, and gait classifier) | Astra camera | Clinic-level diagnosis without any wearable devices and professional doctors | SAIL-TUG  (Recorded Videos) | - |