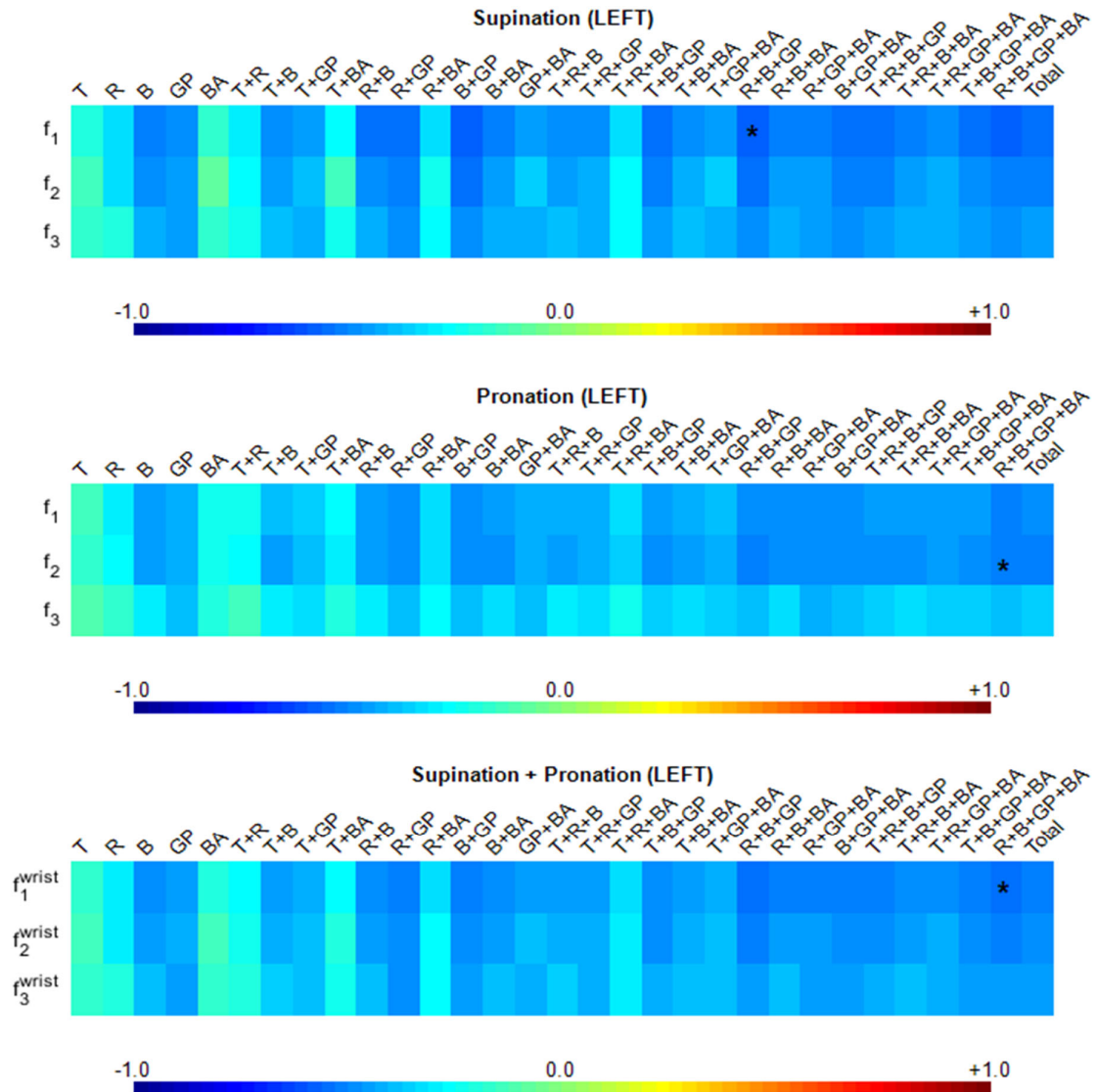
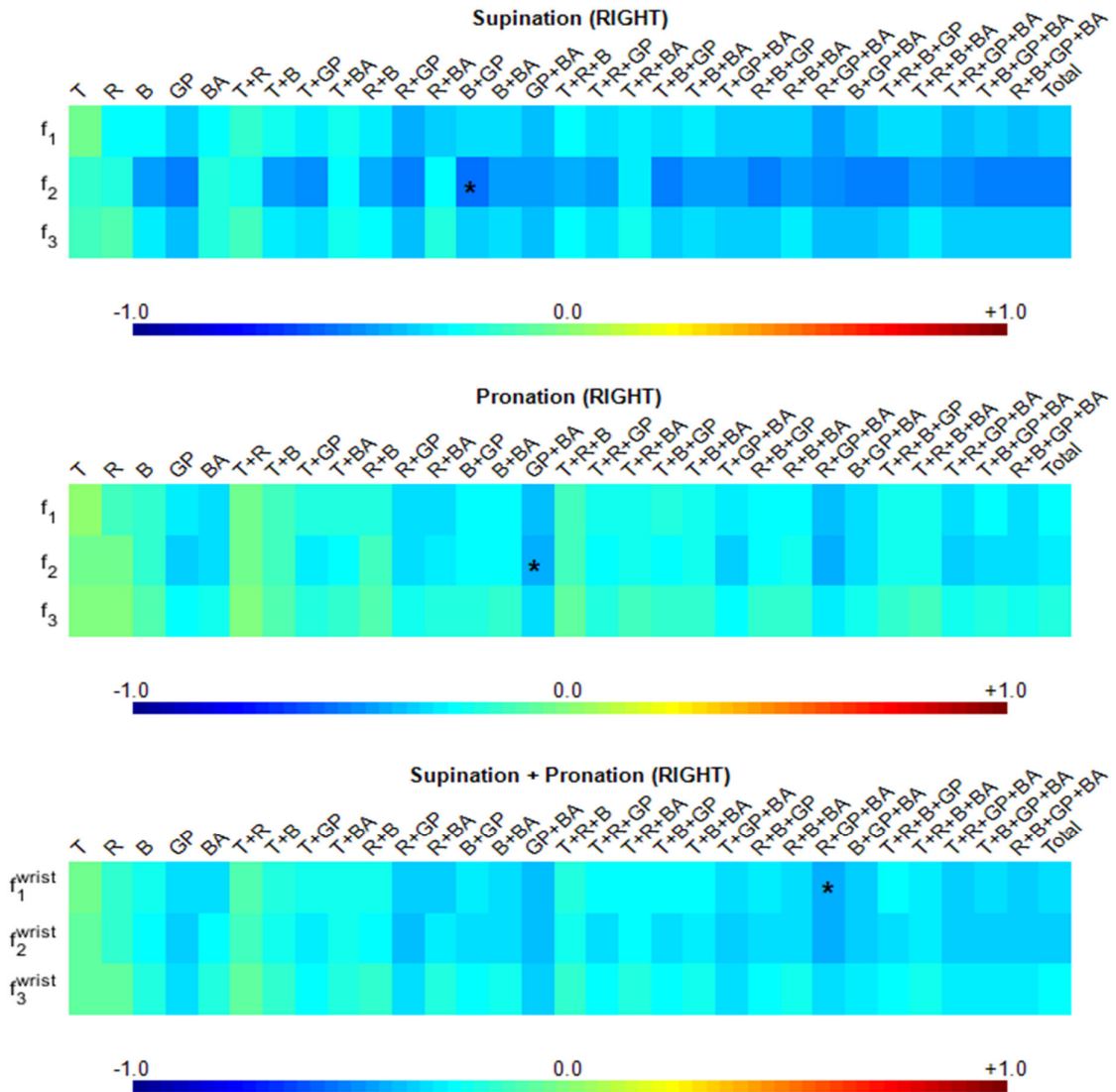


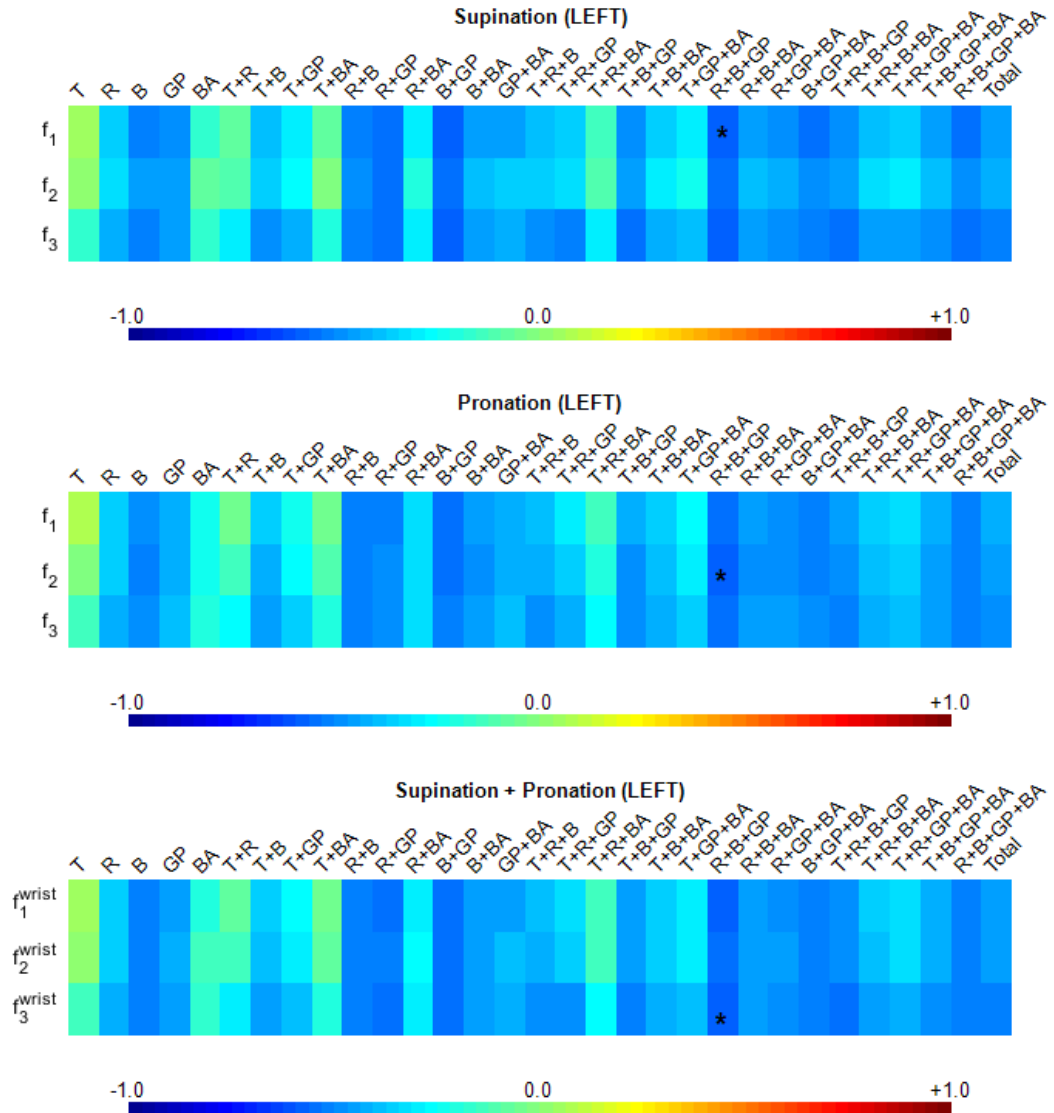
**Figure S1.** Pearson's correlations between the extracted motion features from the right hand and the ipsilateral UPDRS scores from the right hand (rows: features; columns: single and combined UPDRS scores). T=Tremor, R=Rigidity, B=Bradykinesia, GP=Gait and Postural Instability, BA=Bulbar Anomalies, \* indicates strongest correlation; values above 0.2 and below -0.2 were significant at  $p < 0.05$  level (Bonferroni corrected)



**Figure S2.** Pearson's correlations between the extracted motion features from the left hand and the ipsilateral UPDRS scores from the left hand (rows: features; columns: single and combined UPDRS scores). T=Tremor, R=Rigidity, B=Bradykinesia, GP=Gait and Postural Instability, BA=Bulbar Anomalies, \* indicates strongest correlation; values above 0.2 and below -0.2 were significant at  $p < 0.05$  level (Bonferroni corrected)



**Figure S3.** Pearson's correlations between the extracted motion features from the right hand and UPDRS scores for the left hand (rows: features; columns: single and combined UPDRS scores). T=Tremor, R=Rigidity, B=Bradykinesia, GP=Gait and Postural Instability, BA=Bulbar Anomalies, \* indicates strongest correlation; values above 0.2 and below -0.2 were significant at  $p < 0.05$  level (Bonferroni corrected)



**Figure S4.** Pearson's correlations between the extracted motion features from the left hand and UPDRS scores for the right hand (rows: features; columns: single and combined UPDRS scores). T=Tremor, R=Rigidity, B=Bradykinesia, GP=Gait and Postural Instability, BA=Bulbar Anomalies, \* indicates strongest correlation; values above 0.2 and below -0.2 were significant at  $p < 0.05$  level (Bonferroni corrected)

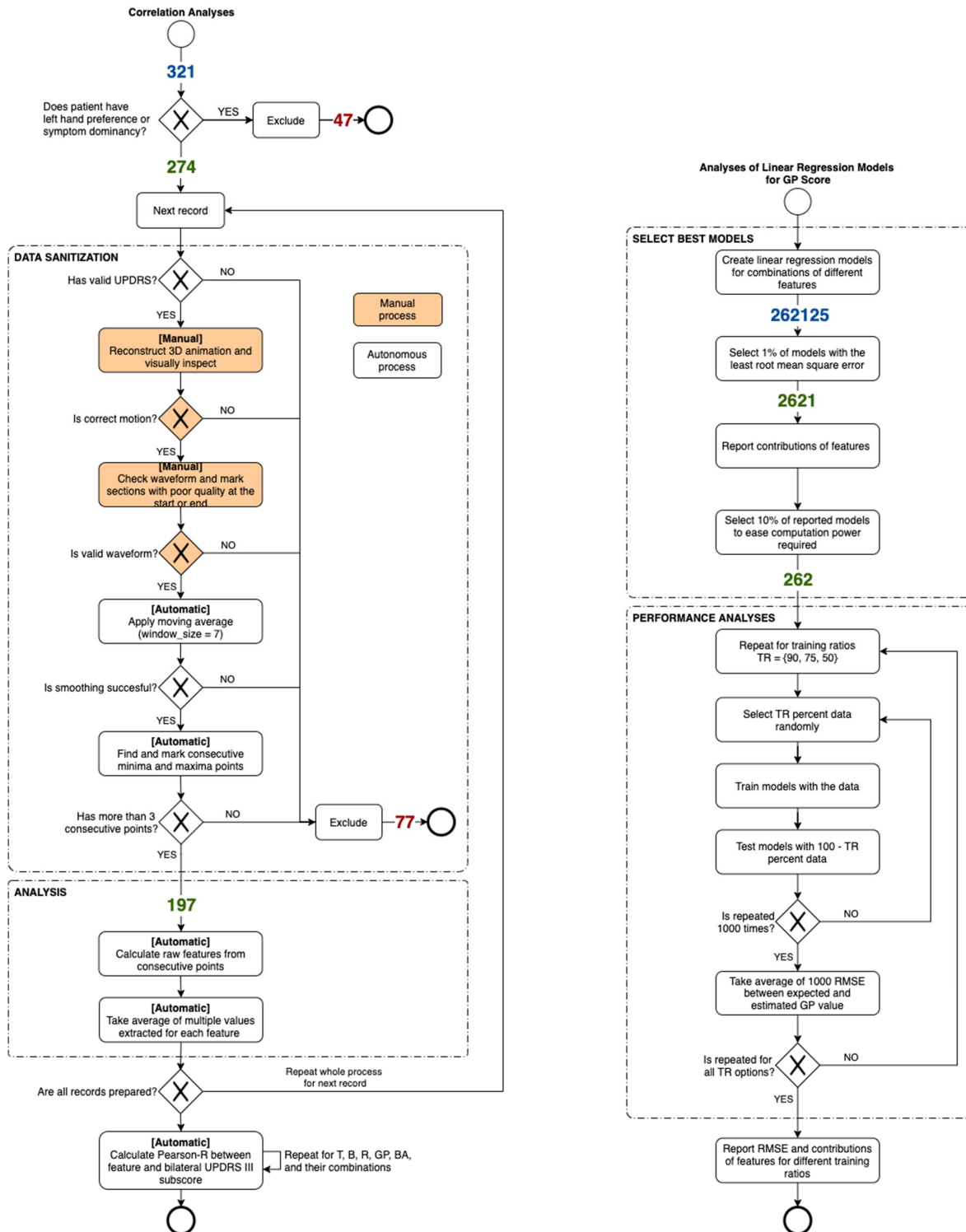


Figure S5. The data analysis algorithm chart