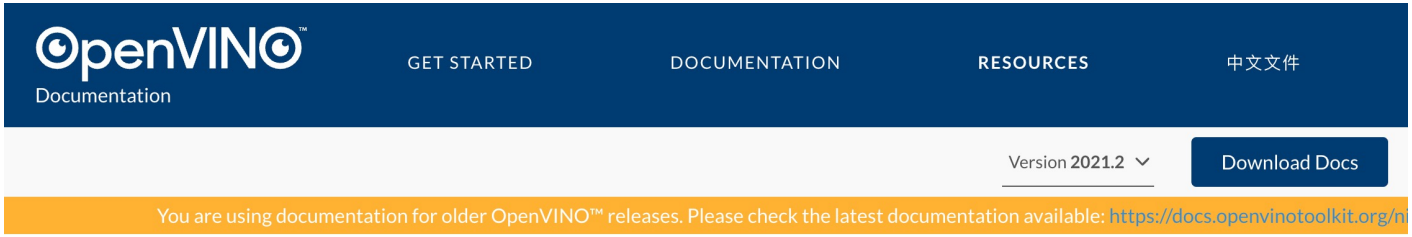
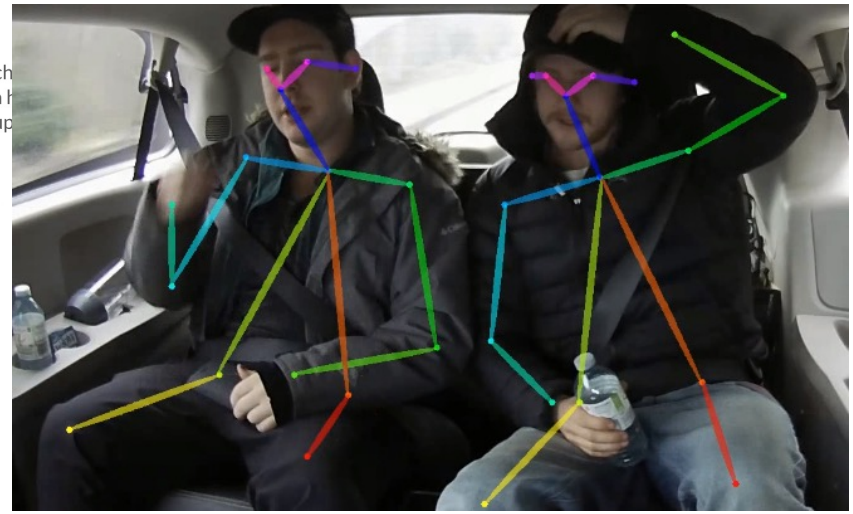

PosteoPilot
Your AI Telehealth solution
for Posture and Gait Prediction



human-pose-estimation-0003

Use Case and High-Level Description

This is a multi-person 2D pose estimation network based on the EfficientHRNet approach
Associative Embedding framework). For every person in an image, the network detects a h
skeleton consisting of keypoints and connections between them. The pose may contain up
eyes, nose, shoulders, elbows, wrists, hips, knees, and ankles.



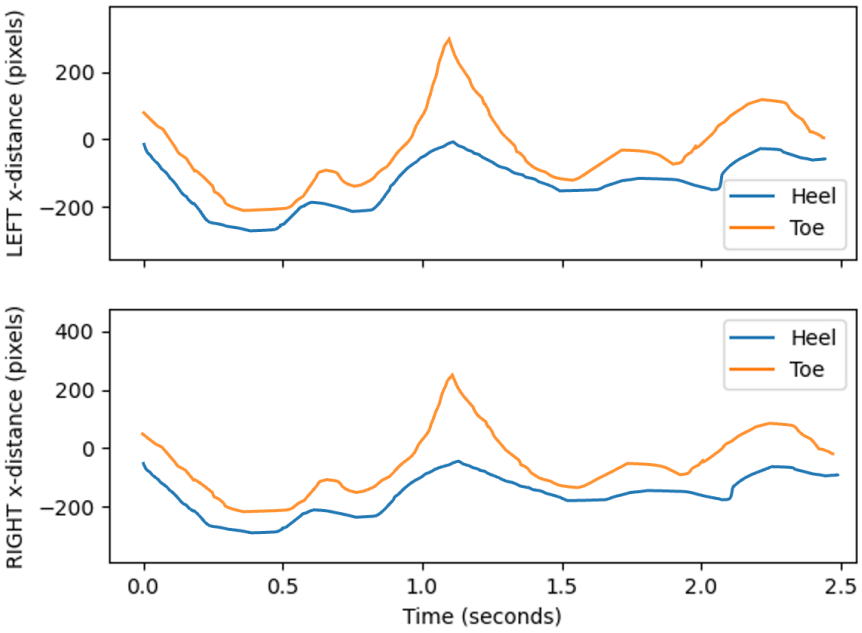
Intel pre-trained model Zoo in OpenVINO

sensor_time	gyro[0]	gyro[1]	gyro[2]	acc[0]	acc[1]	acc[2]	mag[0]	mag[1]	mag[2]	sensor_roll	sensor_yaw
0	0	0	0	-16576	256	3264	-0.2	-1.23	0.27	-13.97	125.52
0.02	0	0	0	-16576	256	3264	-0.2	-1.23	0.28	-13.96	125.47
0.04	0	0	0	-16640	512	3200	-0.21	-1.23	0.27	-13.95	125.42
0.06	0	0	0	-16640	512	3200	-0.19	-1.23	0.28	-13.93	125.37
0.08	0	0	0	-16640	512	3200	-0.2	-1.22	0.27	-13.92	125.33
0.1	0	0	0	-16640	512	3200	-0.19	-1.23	0.28	-13.91	125.28
0.12	0	0	0	-16640	512	3200	-0.21	-1.23	0.28	-13.9	125.23
0.14	0	0	0	-16512	192	3328	-0.2	-1.23	0.27	-13.89	125.18
0.16	0	0	0	-16512	192	3328	-0.21	-1.23	0.27	-13.88	125.13
0.18	32	-21	-33	-16512	192	3328	-0.19	-1.23	0.27	-13.87	125.02
0.2	70	-61	-59	-16512	192	3328	-0.2	-1.23	0.27	-13.84	124.88
0.22	120	-66	-33	-16512	192	3328	-0.19	-1.22	0.27	-13.69	124.8
0.24	27	-63	3	-16576	-896	3264	-0.2	-1.23	0.28	-13.63	124.77
0.26	-7	-50	52	-16576	-896	3264	-0.19	-1.22	0.28	-13.55	124.84
0.28	-8	-36	108	-16576	-896	3264	-0.21	-1.23	0.27	-13.38	125.02
0.3	211	-42	101	-16576	-896	3264	-0.2	-1.23	0.27	-12.92	125.19
0.32	278	-25	53	-16576	-896	3264	-0.2	-1.22	0.28	-12.45	125.25
0.34	161	-23	-16	-16448	640	3392	-0.2	-1.22	0.28	-12.23	125.18
0.36	205	-15	-61	-16448	640	3392	-0.2	-1.22	0.29	-12.02	125.02
0.38	180	11	-130	-16448	640	3392	-0.19	-1.22	0.29	-11.97	124.69
0.4	157	8	-230	-16448	640	3392	-0.19	-1.22	0.3	-12.11	124.16
0.42	191	-36	-289	-16448	640	3392	-0.19	-1.22	0.29	-12.28	123.52
0.44	240	-94	-310	-16512	1472	3200	-0.19	-1.23	0.3	-12.38	122.88
0.46	180	-104	-255	-16512	1472	3200	-0.18	-1.22	0.3	-12.48	122.36
0.48	132	-93	-190	-16512	1472	3200	-0.16	-1.22	0.31	-12.53	121.97
0.5	66	-66	-135	-16512	1472	3200	-0.16	-1.22	0.31	-12.6	121.69
0.52	108	-79	-118	-16512	1472	3200	-0.16	-1.21	0.31	-12.58	121.45
0.54	189	-97	-130	-16448	192	2944	-0.16	-1.22	0.31	-12.48	121.18
0.56	198	-104	-162	-16448	192	2944	-0.14	-1.22	0.31	-12.42	120.84
0.58	187	-106	-153	-16448	192	2944	-0.15	-1.23	0.31	-12.35	120.53

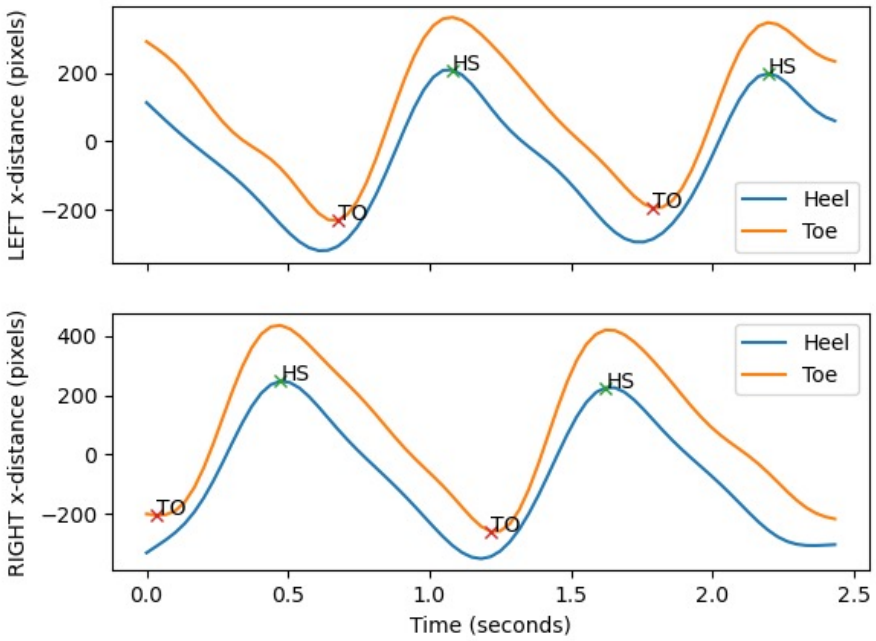
Data Gathered from OpenPose

Tracking of Movement on our AI Algorithm

Parkinson's



Healthy



These graphs will be shared with the medical professionals for diagnosis. For a next step, we plan to work with medical professionals in hospitals to sharpen the accuracy of the algorithm.