

Sense2Stop: Exploratory Analyses

August 10, 2020

Figure 1: Average fraction of classifiable minutes out of the 120 minutes following an available decision time. A classifiable minute is one which belongs to either a detected stressed episode, a not detected stressed episode or an unknown episode that is due to physical activity.

Average fraction of classifiable minutes in 120 minutes following an available decision											
ID	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Average Within ID
202	0.82	0.89	0.68	0.9	0.73	0.64	0.6	0.6	0.44	0.76	0.64
203	nan	nan	nan	nan	nan	nan	0.86	0.38	nan	nan	0.6
205	0.72	0.92	0.76	0.9	0.76	0.8	0.97	0.85	0.82	0.76	0.76
207	0.78	0.74	0.77	0.51	0.9	0.7	0.74	0.79	0.57	nan	0.7
208	0.72	0.78	0.65	0.54	nan	0.59	0.42	0.62	nan	nan	0.6
211	0.92	0.72	0.87	0.67	0.9	0.96	0.72	0.87	0.75	0.78	0.76
212	0.85	nan	0.98	0.2	0.6	nan	nan	nan	nan	nan	0.59
213	0.64	0.33	nan	nan	nan	nan	nan	nan	nan	nan	0.48
214	0.73	0.9	0.76	0	0.88	0.48	0.54	nan	nan	nan	0.53
216	0.71	0.88	0.63	0.74	0.79	0.8	nan	1.27	0.71	0.45	0.72
219	0.86	0.91	0.74	0.91	0.73	0.97	0.83	0.86	0.83	0.9	0.8
221	0.68	nan	nan	nan	nan	nan	nan	nan	nan	nan	0.63
222	0.98	0.83	nan	nan	nan	nan	nan	nan	nan	nan	0.82
223	1	1	0.92	0.91	0.98	0.9	0.2	nan	nan	1	0.82
224	0.2	nan	nan	nan	nan	nan	0.78	0.4	0.1	nan	0.37
225	0.68	0.96	0.96	0.57	1	0.83	0.82	0.64	0.54	0.97	0.77
226	0.95	0.89	0.63	0.83	nan	0.9	0.9	0.89	0.89	0.99	0.84
227	0.78	0.86	0.87	0.88	0.98	0.99	0.94	0.83	0.89	0.78	0.86
228	0.97	0.81	0.73	0.71	0.93	0.84	0.72	0.73	0.73	0.87	0.71
229	0.99	nan	nan	nan	nan	nan	nan	nan	nan	nan	0.92
231	nan	0.88	0.52	nan	nan	nan	nan	nan	nan	nan	0.66
233	0.85	0.84	0.79	0.48	0.82	nan	0.66	nan	nan	nan	0.72
234	nan	0.54	nan	nan	nan	nan	nan	nan	nan	nan	0.44
235	0.75	0.79	0.82	0.54	0.62	nan	nan	nan	nan	nan	0.67
238	0.9	nan	0.83	0.73	0.83	0.74	nan	nan	0.62	0.89	0.76
240	0.85	nan	nan	nan	0.72	0.93	0.93	0.57	0.9	1	0.77
242	0.55	nan	nan	nan	nan	nan	nan	nan	0.68	0.4	0.48
243	0.66	0.33	nan	nan	nan	0.13	nan	nan	nan	nan	0.39
244	0.51	0.46	0.74	0.66	0.48	0.9	0.47	0.31	0.38	0.68	0.53
245	0.35	0	nan	0	0.52	0.24	nan	0.76	nan	0.45	0.3
248	0.43	0	0	0.35	0.1	nan	nan	0.53	nan	nan	0.22
249	0.76	0.92	0.75	0.45	0.52	0.54	0.8	nan	0.99	0.46	0.68
250	0.8	0.62	0.48	0.24	0.82	0.6	0.88	0.87	0.78	0.93	0.69
251	0.78	nan	0.89	nan	0.63	nan	0.41	0.83	0.55	nan	0.61
252	0.88	1	0.99	0.97	0.98	0.87	0.91	0.95	0.82	1	0.89
253	0.94	0.98	1	0.98	0.98	0.95	0.91	0.88	0.81	0.84	0.83
255	0.92	nan	nan	nan	nan	nan	nan	nan	nan	nan	0.85
256	0.66	0	0.79	nan	0.35	0.27	0.73	0.33	0.2	0.32	0.39
258	nan	0.05	0	0.8	1	nan	nan	nan	nan	nan	0.21
259	nan	0	nan	nan	nan	nan	nan	nan	nan	nan	0
260	0.82	0.9	0.92	0.87	0.94	0.87	0.68	0.8	0.47	0.12	0.71
261	0.84	1	0.97	0.71	0.79	0.73	nan	0.86	0.83	0.9	0.79
262	0.73	0.94	0.84	0.77	0.99	0	0.84	0.85	0.81	0.76	0.69
264	nan	0.9	0.78	0.64	0.76	0.45	0.46	0.83	0.88	0.79	0.7
265	0.8	0.65	0.77	0.86	0.66	0.3	0.64	nan	0.91	0.57	0.66
266	nan	1	0.25	nan	nan	nan	nan	nan	nan	nan	0.62
267	nan	0.96	0.99	0.89	0.93	nan	0.9	0	nan	nan	0.68
268	0.52	nan	nan	nan	nan	nan	nan	nan	nan	nan	0.5
269	0.76	0.43	0.68	0.68	0.59	0.39	0.48	0.79	0.73	0.38	0.55

Figure 2: *Number of available decision times in which the user is within a detected stressed episode across days and IDs.*

Number of available decision times in which the user is within a detected stressed episode											
ID	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Average over days
202	3	1	0	0	0	0	0	0	0	2	0.6
203	0	0	0	0	0	0	1	0	0	0	0.1
205	0	1	0	0	0	2	0	0	1	3	0.7
207	0	0	0	0	0	0	1	0	0	0	0.1
208	1	0	0	3	0	3	1	1	0	0	0.9
211	0	2	0	0	1	1	0	2	2	0	0.8
212	3	0	0	0	0	0	0	0	0	0	0.3
213	2	0	0	0	0	0	0	0	0	0	0.2
214	0	0	0	0	0	0	0	0	0	0	0
216	9	0	7	4	6	2	0	0	1	4	3.3
219	1	3	0	0	0	1	1	3	7	2	1.8
221	0	0	0	0	0	0	0	0	0	0	0
222	0	0	0	0	0	0	0	0	0	0	0
223	2	0	2	1	1	3	1	0	0	0	1
224	4	0	0	0	0	0	4	0	0	0	0.8
225	0	3	2	0	0	0	0	0	0	0	0.5
226	3	0	3	0	0	2	0	1	0	1	1
227	1	0	1	1	1	4	0	0	2	3	1.3
228	1	0	1	1	1	0	0	0	0	0	0.4
229	1	0	0	0	0	0	0	0	0	0	0.1
231	0	1	0	0	0	0	0	0	0	0	0.1
233	0	1	0	1	0	0	0	0	0	0	0.2
234	0	0	0	0	0	0	0	0	0	0	0
235	0	0	1	1	0	0	0	0	0	0	0.2
238	0	0	1	0	0	0	0	0	0	0	0.1
240	0	0	0	0	0	0	0	0	0	0	0
242	1	0	0	0	0	0	0	0	0	0	0.1
243	2	1	0	0	0	1	0	0	0	0	0.4
244	0	0	1	1	1	0	0	1	4	5	1.3
245	0	0	0	0	0	0	0	0	0	0	0
248	0	0	0	0	0	0	0	0	0	0	0
249	1	3	0	1	1	2	1	0	1	1	1.1
250	3	0	2	0	0	0	0	0	0	5	1
251	1	0	0	0	0	0	1	0	0	0	0.2
252	0	3	2	1	1	0	2	0	3	0	1.2
253	1	5	0	2	1	0	1	4	1	5	2
255	0	0	0	0	0	0	0	0	0	0	0
256	1	0	0	0	0	0	1	0	0	2	0.4
258	0	0	0	0	0	0	0	0	0	0	0
259	0	0	0	0	0	0	0	0	0	0	0
260	2	0	1	2	2	1	0	0	0	1	0.9
261	1	0	1	5	1	1	0	0	1	0	1
262	0	0	1	0	0	0	0	0	0	0	0.1
264	0	0	0	0	0	0	0	0	0	0	0
265	0	2	1	2	1	0	3	0	3	4	1.6
266	0	0	0	0	0	0	0	0	0	0	0
267	0	1	0	0	0	0	5	0	0	0	0.6
268	0	0	0	0	0	0	0	0	0	0	0
269	0	1	0	2	0	0	0	3	0	0	0.6
Average over days and IDs											0.6

Figure 3: *Number of available decision times in which the user is within a not detected stressed episode across days and IDs.*

Number of available decision times in which the user is within a not detected stressed episode											
ID	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Average over days
202	1	14	6	2	7	5	2	4	8	18	6.7
203	0	0	0	0	0	0	9	6	0	0	1.5
205	21	21	14	41	23	16	28	18	18	16	21.6
207	24	28	30	27	34	33	11	25	17	0	22.9
208	5	19	16	7	0	7	17	4	0	0	7.5
211	9	29	32	15	12	11	30	13	8	21	18
212	22	0	9	2	8	0	0	0	0	0	4.1
213	5	4	0	0	0	0	0	0	0	0	0.9
214	17	20	5	1	12	12	8	0	0	0	7.5
216	8	36	17	13	11	10	0	14	6	2	11.7
219	8	32	26	37	19	23	20	24	14	26	22.9
221	4	0	0	0	0	0	0	0	0	0	0.4
222	12	19	0	0	0	0	0	0	0	0	3.1
223	3	22	15	15	20	16	1	0	0	1	9.3
224	0	0	0	0	0	0	15	3	1	0	1.9
225	8	17	6	8	1	18	40	16	11	20	14.5
226	3	37	24	35	0	10	7	14	26	9	16.5
227	13	31	25	40	30	24	45	30	28	16	28.2
228	18	28	14	26	23	10	27	11	9	15	18.1
229	7	0	0	0	0	0	0	0	0	0	0.7
231	0	3	4	0	0	0	0	0	0	0	0.7
233	11	27	43	23	11	0	25	0	0	0	14
234	0	12	0	0	0	0	0	0	0	0	1.2
235	17	24	21	13	6	0	0	0	0	0	8.1
238	2	0	22	10	17	16	0	0	6	36	10.9
240	4	0	0	0	4	13	13	4	11	3	5.2
242	1	0	0	0	0	0	0	0	6	2	0.9
243	3	2	0	0	0	2	0	0	0	0	0.7
244	11	18	26	18	12	20	18	7	6	13	14.9
245	8	1	0	1	11	11	0	5	0	2	3.9
248	7	1	1	4	2	0	0	22	0	0	3.7
249	7	15	11	5	26	11	30	0	37	14	15.6
250	17	32	14	9	21	22	22	47	36	5	22.5
251	21	0	14	0	13	0	6	7	2	0	6.3
252	30	24	23	29	42	22	7	31	3	30	24.1
253	13	14	27	16	20	25	12	4	17	13	16.1
255	4	0	0	0	0	0	0	0	0	0	0.4
256	4	1	13	0	8	6	6	9	4	2	5.3
258	0	2	1	1	1	0	0	0	0	0	0.5
259	0	1	0	0	0	0	0	0	0	0	0.1
260	22	25	19	25	25	10	5	4	22	3	16
261	28	22	10	9	28	22	0	24	21	26	19
262	18	18	23	15	11	1	9	20	15	18	14.8
264	0	28	11	16	16	17	15	23	8	27	16.1
265	4	16	23	7	15	14	7	0	15	9	11
266	0	17	2	0	0	0	0	0	0	0	1.9
267	0	34	13	16	11	0	28	1	0	0	10.3
268	4	0	0	0	0	0	0	0	0	0	0.4
269	11	9	19	18	13	14	13	20	18	16	15.1
Average over days and IDs											9.7