

A. Final LAD Classifier to detect attacks in CarChallenge2020 dataset

Classifier 2 classifier to distinguish normal and attack in CarChallenge2020 dataset

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1: if row['Arbitration_ID'] == '000' then:
2:   return 'attack'
3: else if row['TimePeriod'] <= 0.008427977561950684 then:
4:   return 'attack'
5: else if row['TimePeriod'] <= 0.06636488437652588 and row['TimePeriod'] >= 0.05364358425140381 then:
6:   return 'attack'
7: else if row['D4'] >= 50.5 and row['D0'] >= 32.5 and row['TimeInterval'] >= 0.00029909610748291016 then:
8:   return 'attack'
9: else if row['D1'] >= 66.5 and row['D3'] >= 161.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
10:   return 'attack'
11: else if row['D6'] >= 111.5 and row['D3'] >= 161.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
12:   return 'attack'
13: else if row['D3'] >= 161.5 and row['D7'] >= 143.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
14:   return 'attack'
15: else if row['TimeInterval'] >= 0.0013914108276367188 and row['P_CAN_ID_2B0'] >= 0.5 then:
16:   return 'attack'
17: else if row['TimeInterval'] >= 0.0003548860549926758 and row['D0'] >= 16.5 and row['D4'] >= 127.5 then:
18:   return 'attack'
19: else if row['Arbitration_ID'] == '2B0' then:
20:   if row['DLC'] >= 7.0 then:
21:     return 'attack'
22:   else if row['TimeInterval'] >= 0.0002846717834472656 and row['P_CAN_ID_164'] >= 0.5 then:
23:     return 'attack'
24:   else if row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] >= 0.0002846717834472656 and row['D5'] <= 33.5 then:
25:     return 'attack'
26:   else if row['D4'] >= 128.5 and row['TimeInterval'] <= 0.00019538402557373047 and row['P_CAN_ID_164'] >= 0.5 then:
27:     return 'attack'
28:   else if row['TimeInterval'] <= 0.00019538402557373047 and row['D1'] <= 1.5 and row['P_CAN_ID_164'] >= 0.5 then:
29:     return 'attack'
30:   else if row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] >= 0.0002846717834472656 then:
31:     return 'attack'
32:   else if row['P_CAN_ID_251'] <= 0.5 and row['D1'] <= 253.5 and row['TimeInterval'] <= 0.00019538402557373047 then:
33:     return 'attack'
34:   else
35:     'normal'
36: else if row['Arbitration_ID'] == '4A2' then:
37:   if row['DLC'] >= 5.0 then:
38:     return 'attack'
39:   else if row['TimeInterval'] >= 0.0002111195 and row['P_CAN_ID_38D'] >= 0.5 then:
40:     return 'attack'
41:   else if row['P_CAN_ID_485'] <= 0.5 and row['TimeInterval'] >= 0.0002111195 then:
42:     return 'attack'
43:   else if row['TimeInterval'] >= 0.0002111195 and row['TimeInterval'] <= 0.0006757975 then:
44:     return 'attack'
45:   else if row['TimeInterval'] <= 0.000119448 and row['TimeInterval'] >= 0.00011205650000000001 and row['P_CAN_ID_483'] <= 0.5 then:
46:     return 'attack'
47:   else
48:     'normal'
49: else if row['Arbitration_ID'] == '4A4' then:
50:   if row['D0'] >= 15.5 then:
51:     return 'attack'
52:   else if row['D0'] <= 12.5 then:
53:     return 'attack'
54:   else if row['TimeInterval'] >= 0.0003000495 then:
55:     return 'attack'
56:   else if row['TimeInterval'] <= 0.000235081 and row['TimeInterval'] >= 0.000208497 then:
57:     return 'attack'
58:   else
59:     'normal'
60: else if row['Arbitration_ID'] == '4A7' then:
61:   if row['DLC'] >= 5.0 then:
62:     return 'attack'
63:   else if row['TimeInterval'] >= 0.0004811286926269531 then:
64:     return 'attack'
65:   else if row['TimeInterval'] >= 0.00036263465881347656 then:
66:     return 'attack'
67:   else if row['TimeInterval'] >= 0.00011539459228515625 and row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] <= 0.00011694431304931642 then:
68:     return 'attack'
69:   else if row['TimeInterval'] >= 0.00011050701141357422 and row['TimeInterval'] <= 0.00011241436004638672 and row['P_CAN_ID_470'] <= 0.5 then:
70:     return 'attack'
71:   else if row['P_CAN_ID_42D'] <= 0.5 and row['P_CAN_ID_484'] <= 0.5 and row['TimeInterval'] >= 0.00019860267639160156 then:
72:     return 'attack'
73:   else
74:     'normal'
75: else if row['Arbitration_ID'] == '4A9' then:
76:   if row['TimeInterval'] >= 0.00029850006103515625 then:
77:     return 'attack'
78:   else if row['TimeInterval'] <= 0.0002186298370361328 then:
79:     return 'attack'
80:   else if row['TimeInterval'] <= 0.0002149343490600586 and row['TimeInterval'] >= 0.00021398067474365237 then:
81:     return 'attack'

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82: else if row['TimeInterval'] >= 0.00021183490753173828 and row['TimeInterval'] <= 0.00021278858184814453 then:
83:     return 'attack'
84: else if row['TimeInterval'] >= 0.0002186298370361328 and row['TimeInterval'] <= 0.00023448467254638675 then:
85:     return 'attack'
86: else if row['P_CAN_ID_470'] <= 0.5 and row['TimeInterval'] <= 0.00021588802337646484 and row['TimeInterval'] >= 0.0002149343490600586 then:
87:     return 'attack'
88: else if row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] <= 0.00022304058074951172 and row['TimeInterval'] >= 0.00020802021026611328 then:
89:     return 'attack'
90: else
91:     'normal'
92: else if row['Arbitration_ID'] == '4C9' then:
93:     if row['TimeInterval'] <= 0.00021708011627197266 then:
94:         return 'attack'
95:     else if row['TimeInterval'] >= 0.00029647350311279297 then:
96:         return 'attack'
97:     else if row['TimeInterval'] >= 0.00029647350311279297 and row['P_CAN_ID_386'] >= 0.5 then:
98:         return 'attack'
99:     else if row['TimeInterval'] >= 0.00021708011627197266 and row['TimeInterval'] <= 0.00022017955780029294 then:
100:         return 'attack'
101:     else if row['TimeInterval'] <= 0.00023472309112548828 and row['TimeInterval'] >= 0.0002315044403076172 then:
102:         return 'attack'
103:     else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] <= 0.00022554397583007812 and row['TimeInterval'] >= 0.00022017955780029294 then:
104:         return 'attack'
105:     else if row['TimeInterval'] <= 0.00024020671844482422 and row['TimeInterval'] >= 0.00021040439605712888 and row['P_CAN_ID_485'] >= 0.5 then:
106:         return 'attack'
107:     else if row['TimeInterval'] <= 0.00021708011627197266 and row['TimeInterval'] >= 0.00021040439605712888 and row['P_CAN_ID_140'] >= 0.5 then:
108:         return 'attack'
109:     else if row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00020802021026611328 and row['TimeInterval'] <= 0.00021326541900634766 then:
110:         return 'attack'
111:     else
112:         'normal'
113: else if row['Arbitration_ID'] == '4CB' then:
114:     if row['D1'] >= 10.5 then:
115:         return 'attack'
116:     else if row['TimeInterval'] >= 0.0007909536361694336 and row['P_CAN_ID_485'] <= 0.5 then:
117:         return 'attack'
118:     else if row['TimeInterval'] <= 0.00024116039276123047 and row['P_CAN_ID_164'] >= 0.5 then:
119:         return 'attack'
120:     else if row['TimeInterval'] >= 0.00030350685119628906 and row['D0'] >= 128.5 then:
121:         return 'attack'
122:     else if row['TimeInterval'] >= 0.00036394596099853516 and row['TimeInterval'] <= 0.0004825592041015625 then:
123:         return 'attack'
124:     else if row['D0'] <= 2.0 and row['TimeInterval'] >= 0.00022947788238525393 and row['TimeInterval'] <= 0.0002371072769165039 then:
125:         return 'attack'
126:     else if row['D0'] <= 2.0 and row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0005388259887695312 then:
127:         return 'attack'
128:     else if row['P_CAN_ID_47F'] <= 0.5 and row['TimeInterval'] <= 0.00022947788238525393 and row['D0'] >= 128.5 then:
129:         return 'attack'
130:     else
131:         'normal'
132: else if row['Arbitration_ID'] == '4F1' then:
133:     if row['DLC'] >= 6.0 then:
134:         return 'attack'
135:     else if row['TimeInterval'] >= 0.00026297569274902344 then:
136:         return 'attack'
137:     else if row['TimeInterval'] >= 0.00020360946655273438 and row['D1'] <= 7.5 and row['P_CAN_ID_386'] >= 0.5 then:
138:         return 'attack'
139:     else if row['D1'] <= 7.5 and row['TimeInterval'] >= 0.00015103816986083984 and row['TimeInterval'] <= 0.00015366077423095703 then:
140:         return 'attack'
141:     else
142:         'normal'
143: else if row['Arbitration_ID'] == '5A6' then:
144:     if row['TimeInterval'] >= 0.00030291080474853516 then:
145:         return 'attack'
146:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.00024306774139404294 then:
147:         return 'attack'
148:     else if row['TimeInterval'] <= 0.00023257732391357422 and row['P_CAN_ID_541'] >= 0.5 then:
149:         return 'attack'
150:     else if row['TimeInterval'] >= 0.001244187355041504 and row['P_CAN_ID_367'] <= 0.5 then:
151:         return 'attack'
152:     else if row['TimeInterval'] >= 0.0007932186126708984 and row['TimeInterval'] <= 0.0011066198348999023 then:
153:         return 'attack'
154:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.0002168416976928711 and row['TimeInterval'] >= 0.0002149343490600586 then:
155:         return 'attack'
156:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.00023257732391357422 and row['TimeInterval'] >= 0.0002290010452270508 then:
157:         return 'attack'
158:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.0002130270004272461 and row['TimeInterval'] >= 0.00021088123321533203 then:
159:         return 'attack'
160:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] >= 0.000217437744140625 and row['TimeInterval'] <= 0.00021898746490478518 then:
161:         return 'attack'
162:     else if row['TimeInterval'] >= 0.00034356117248535156 and row['P_CAN_ID_381'] <= 0.5 and row['TimeInterval'] <= 0.00040471553802490234 then:
163:         return 'attack'
164:     else
165:         'normal'
166: else if row['Arbitration_ID'] == '5B0' then:

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167:   if row['DLC'] >= 6.0 then:
168:       return 'attack'
169:   else if row['D0'] >= 157.5 and row['TimeInterval'] <= 0.00015616416931152344 then:
170:       return 'attack'
171:   else if row['D0'] >= 157.5 and row['TimeInterval'] >= 0.00019943714141845703 then:
172:       return 'attack'
173:   else
174:       'normal'
175:   else if row['Arbitration_ID'] == '5BE' then:
176:       if row['D3'] >= 3.5 then:
177:           return 'attack'
178:       else if row['D0'] >= 4.5 then:
179:           return 'attack'
180:       else if row['TimeInterval'] >= 0.0003523826599121094 and row['TimeInterval'] <= 0.00037276744842529297 then:
181:           return 'attack'
182:       else if row['TimeInterval'] >= 0.0003523826599121094 and row['P_CAN_ID_58B'] >= 0.5 then:
183:           return 'attack'
184:       else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_48A'] >= 0.5 then:
185:           return 'attack'
186:       else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.00043511390686035156 then:
187:           return 'attack'
188:       else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.0002282857894897461 then:
189:           return 'attack'
190:       else
191:           'normal'
192:   else if row['Arbitration_ID'] == '5CD' then:
193:       if row['TimeInterval'] >= 0.000301361083984375 then:
194:           return 'attack'
195:       else if row['TimeInterval'] <= 0.00022268295288085938 then:
196:           return 'attack'
197:       else if row['TimeInterval'] <= 0.00024056434631347656 and row['P_CAN_ID_568'] >= 0.5 then:
198:           return 'attack'
199:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_58B'] >= 0.5 then:
200:           return 'attack'
201:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_260'] >= 0.5 then:
202:           return 'attack'
203:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_329'] >= 0.5 then:
204:           return 'attack'
205:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_140'] >= 0.5 then:
206:           return 'attack'
207:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_381'] >= 0.5 then:
208:           return 'attack'
209:       else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_164'] >= 0.5 then:
210:           return 'attack'
211:       else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_386'] >= 0.5 then:
212:           return 'attack'
213:       else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_140'] >= 0.5 then:
214:           return 'attack'
215:       else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_164'] >= 0.5 then:
216:           return 'attack'
217:       else if row['TimeInterval'] >= 0.0003260374069213867 and row['P_CAN_ID_387'] >= 0.5 then:
218:           return 'attack'
219:       else if row['P_CAN_ID_386'] >= 0.5 and row['TimeInterval'] <= 0.0007874965667724609 and row['P_CAN_ID_386'] >= 0.5 then:
220:           return 'attack'
221:       else if row['P_CAN_ID_386'] >= 0.5 and row['TimeInterval'] <= 0.002046346664428711 and row['P_CAN_ID_386'] >= 0.5 then:
222:           return 'attack'
223:       else if row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00021278858184814453 then:
224:           return 'attack'
225:       else if row['P_CAN_ID_52A'] >= 0.5 and row['TimeInterval'] >= 0.0003260374069213867 and row['P_CAN_ID_386'] >= 0.5 then:
226:           return 'attack'
227:       else if row['P_CAN_ID_329'] >= 0.5 and row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] <= 0.00021147727966308594 then:
228:           return 'attack'
229:       else if row['P_CAN_ID_52A'] <= 0.5 and row['P_CAN_ID_52A'] <= 0.5 and row['P_CAN_ID_52A'] <= 0.5 and row['P_CAN_ID_52A'] <= 0.5 then:
230:           return 'attack'
231:       else
232:           'normal'
233:   else if row['Arbitration_ID'] == '07F' then:
234:       if row['P_CAN_ID_386'] >= 0.0003885030746459961 then:
235:           return 'attack'
236:       else if row['P_CAN_ID_381'] >= 0.5 and row['P_CAN_ID_381'] >= 0.5 then:
237:           return 'attack'
238:       else if row['P_CAN_ID_329'] >= 0.5 and row['P_CAN_ID_329'] >= 0.5 then:
239:           return 'attack'
240:       else if row['P_CAN_ID_541'] >= 0.5 and row['P_CAN_ID_541'] >= 0.5 then:
241:           return 'attack'
242:       else if row['P_CAN_ID_386'] >= 0.00021898746490478518 then:
243:           return 'attack'
244:       else if row['P_CAN_ID_381'] >= 0.5 and row['P_CAN_ID_381'] >= 0.5 then:
245:           return 'attack'
246:       else if row['P_CAN_ID_500'] >= 0.5 and row['P_CAN_ID_500'] >= 0.5 then:
247:           return 'attack'
248:       else if row['P_CAN_ID_520'] >= 0.5 and row['P_CAN_ID_520'] >= 0.5 then:
249:           return 'attack'
250:       else if row['P_CAN_ID_520'] >= 0.0003470182418823242 and row['P_CAN_ID_520'] >= 0.0003701448440551758 then:
251:           return 'attack'

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252: else if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0002143383026123047 then:
253:     return 'attack'
254: else if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
255:     return 'attack'
256: else if row['P_CAN_ID_381'] >= 0.5 and row['TimeInterval'] <= 0.00024902820587158203 then:
257:     return 'attack'
258: else if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.00038802623748779297 then:
259:     return 'attack'
260: else if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0003707408905029297 then:
261:     return 'attack'
262: else if row['TimeInterval'] >= 0.00031197071075439453 and row['TimeInterval'] <= 0.0003255605697631836 then:
263:     return 'attack'
264: else if row['TimeInterval'] >= 0.0002143383026123047 and row['TimeInterval'] <= 0.0002187490463256836 then:
265:     return 'attack'
266: else if row['TimeInterval'] <= 0.00038802623748779297 and row['TimeInterval'] >= 0.0003707408905029297 then:
267:     return 'attack'
268: else if row['TimeInterval'] <= 0.00023615360260009766 and row['P_CAN_ID_520'] <= 0.5 and row['P_CAN_ID_386'] <= 0.5 then:
269:     return 'attack'
270: else if row['TimeInterval'] >= 0.0003001689910888672 and row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0003019571304321289 then:
271:     return 'attack'
272: else if row['TimeInterval'] >= 0.0003470182418823242 and row['P_CAN_ID_329'] <= 0.5 and row['P_CAN_ID_541'] <= 0.5 then:
273:     return 'attack'
274: else
275:     'normal'
276: else if row['Arbitration_ID'] == '7C4' then:
277:     if row['D2'] >= 10.5 then:
278:         return 'attack'
279:     else if row['D1'] >= 25.5 then:
280:         return 'attack'
281:     else if row['D0'] >= 48.5 then:
282:         return 'attack'
283:     else
284:         'normal'
285: else if row['Arbitration_ID'] == '7CC' then:
286:     if row['D0'] >= 38.5 then:
287:         return 'attack'
288:     else if row['D0'] >= 32.5 and row['D6'] >= 169.5 then:
289:         return 'attack'
290:     else if row['D6'] >= 169.5 and row['D7'] <= 135.5 then:
291:         return 'attack'
292:     else if row['D6'] >= 169.5 and row['D5'] <= 134.5 then:
293:         return 'attack'
294:     else if row['D6'] >= 169.5 and row['D4'] <= 23.5 then:
295:         return 'attack'
296:     else if row['D7'] >= 135.5 and row['D4'] <= 23.5 then:
297:         return 'attack'
298:     else if row['D5'] >= 134.5 and row['D4'] <= 23.5 then:
299:         return 'attack'
300:     else if row['D3'] >= 35.5 and row['D0'] >= 32.5 and row['D5'] >= 134.5 then:
301:         return 'attack'
302:     else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['TimeInterval'] <= 0.00022947788238525393 then:
303:         return 'attack'
304:     else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['D6'] <= 169.5 then:
305:         return 'attack'
306:     else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['TimeInterval'] >= 0.0003546476364135742 then:
307:         return 'attack'
308:     else if row['D3'] >= 35.5 and row['TimeInterval'] <= 0.00022947788238525393 and row['D7'] >= 135.5 then:
309:         return 'attack'
310:     else if row['D3'] <= 35.5 and row['D0'] >= 32.5 and row['D7'] >= 135.5 then:
311:         return 'attack'
312:     else if row['D3'] <= 35.5 and row['D6'] <= 169.5 and row['D7'] >= 135.5 then:
313:         return 'attack'
314:     else if row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D5'] >= 134.5 then:
315:         return 'attack'
316:     else if row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D4'] >= 23.5 then:
317:         return 'attack'
318:     else
319:         'normal'
320: else if row['Arbitration_ID'] == '7D0' then:
321:     if row['D2'] >= 10.5 then:
322:         return 'attack'
323:     else if row['D1'] >= 25.5 then:
324:         return 'attack'
325:     else if row['D7'] <= 169.0 then:
326:         return 'attack'
327:     else if row['D0'] >= 48.5 then:
328:         return 'attack'
329:     else
330:         'normal'
331: else if row['Arbitration_ID'] == '7D4' then:
332:     if row['D6'] <= 169.5 then:
333:         return 'attack'
334:     else if row['D5'] <= 169.5 then:
335:         return 'attack'
336:     else if row['D7'] <= 169.5 then:

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337:     return 'attack'
338: else if row['P_CAN_ID_260'] >= 0.5 then:
339:     return 'attack'
340: else if row['D3'] <= 11.5 then:
341:     return 'attack'
342: else if row['P_CAN_ID_436'] >= 0.5 then:
343:     return 'attack'
344: else if row['P_CAN_ID_52A'] >= 0.5 then:
345:     return 'attack'
346: else if row['P_CAN_ID_5BE'] >= 0.5 then:
347:     return 'attack'
348: else if row['TimeInterval'] >= 0.0002524852752685547 and row['TimeInterval'] <= 0.00044167041778564453 then:
349:     return 'attack'
350: else if row['TimeInterval'] <= 0.0002524852752685547 and row['D4'] <= 169.5 then:
351:     return 'attack'
352: else if row['D4'] <= 169.5 and row['D3'] <= 169.5 then:
353:     return 'attack'
354: else if row['D4'] <= 169.5 and row['D0'] >= 47.5 then:
355:     return 'attack'
356: else if row['D3'] <= 169.5 and row['D0'] >= 47.5 then:
357:     return 'attack'
358: else if row['D1'] >= 23.5 and row['D0'] >= 47.5 then:
359:     return 'attack'
360: else
361:     'normal'
362: else if row['Arbitration_ID'] == '7D8' then:
363:     if row['D0'] >= 48.5 then:
364:         return 'attack'
365:     else if row['D3'] >= 41.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
366:         return 'attack'
367:     else if row['D0'] <= 32.5 and row['D7'] <= 128.5 then:
368:         return 'attack'
369:     else if row['D0'] <= 32.5 and row['D0'] >= 16.5 then:
370:         return 'attack'
371:     else if row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['TimeInterval'] >= 0.00029850006103515625 then:
372:         return 'attack'
373:     else if row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['D2'] >= 57.5 then:
374:         return 'attack'
375:     else if row['D3'] >= 41.5 and row['D6'] <= 56.5 and row['D0'] <= 32.5 then:
376:         return 'attack'
377:     else if row['D3'] >= 41.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D2'] >= 57.5 then:
378:         return 'attack'
379:     else if row['D3'] >= 41.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D7'] >= 128.5 then:
380:         return 'attack'
381:     else if row['D6'] >= 56.5 and row['D2'] <= 57.5 and row['D0'] >= 32.5 then:
382:         return 'attack'
383:     else if row['D6'] >= 56.5 and row['D0'] <= 32.5 and row['D6'] <= 128.5 then:
384:         return 'attack'
385:     else if row['D6'] >= 56.5 and row['D7'] >= 128.5 and row['D6'] <= 128.5 then:
386:         return 'attack'
387:     else if row['D6'] <= 56.5 and row['TimeInterval'] <= 0.00022709369659423828 and row['D2'] <= 57.5 then:
388:         return 'attack'
389:     else if row['D6'] <= 56.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D2'] >= 57.5 then:
390:         return 'attack'
391:     else if row['TimeInterval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D7'] >= 128.5 then:
392:         return 'attack'
393:     else if row['TimeInterval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D6'] >= 128.5 then:
394:         return 'attack'
395:     else
396:         'normal'
397: else if row['Arbitration_ID'] == '7DC' then:
398:     if row['D0'] >= 48.5 then:
399:         return 'attack'
400:     else if row['D3'] >= 18.5 and row['D2'] >= 25.5 then:
401:         return 'attack'
402:     else if row['D3'] >= 18.5 and row['TimeInterval'] <= 0.00022959709167480471 then:
403:         return 'attack'
404:     else if row['D3'] >= 18.5 and row['D5'] <= 133.5 then:
405:         return 'attack'
406:     else if row['D3'] <= 18.5 and row['D4'] <= 133.5 then:
407:         return 'attack'
408:     else if row['D2'] <= 25.5 and row['TimeInterval'] <= 0.00022959709167480471 then:
409:         return 'attack'
410:     else if row['TimeInterval'] <= 0.00022959709167480471 and row['D5'] <= 133.5 then:
411:         return 'attack'
412:     else if row['TimeInterval'] <= 0.00022959709167480471 and row['D0'] >= 3.5 then:
413:         return 'attack'
414:     else
415:         'normal'
416: else if row['Arbitration_ID'] == '42D' then:
417:     if row['TimeInterval'] >= 0.0014973878860473633 then:
418:         return 'attack'
419:     else if row['D4'] >= 2.5 and row['TimeInterval'] >= 0.0002999305725097656 then:
420:         return 'attack'
421:     else if row['D4'] >= 2.5 and row['D7'] >= 33.5 then:

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422:     return 'attack'
423: else if row['D4'] <= 2.5 and row['D5'] <= 145.5 then:
424:     return 'attack'
425: else if row['D4'] <= 2.5 and row['D6'] >= 7.5 then:
426:     return 'attack'
427: else if row['TimeInterval'] >= 0.0002999305725097656 and row['P_CAN_ID_387'] >= 0.5 then:
428:     return 'attack'
429: else if row['TimeInterval'] >= 0.0003370046615600586 and row['TimeInterval'] <= 0.0004252195358276367 then:
430:     return 'attack'
431: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_140'] >= 0.5 then:
432:     return 'attack'
433: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_368'] >= 0.5 then:
434:     return 'attack'
435: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_329'] >= 0.5 then:
436:     return 'attack'
437: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['P_CAN_ID_389'] >= 0.5 then:
438:     return 'attack'
439: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_140'] >= 0.5 then:
440:     return 'attack'
441: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_386'] >= 0.5 then:
442:     return 'attack'
443: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_387'] >= 0.5 then:
444:     return 'attack'
445: else if row['TimeInterval'] >= 0.00022494792938232422 and row['P_CAN_ID_391'] >= 0.5 and row['TimeInterval'] <= 0.00022637844085693362 then:
446:     return 'attack'
447: else if row['P_CAN_ID_389'] <= 0.5 and row['TimeInterval'] >= 0.00022709369659423828 and row['TimeInterval'] <= 0.0002275705337524414 then:
448:     return 'attack'
449: else if row['P_CAN_ID_340'] <= 0.5 and row['P_CAN_ID_421'] <= 0.5 and row['TimeInterval'] >= 0.0009629726409912109 then:
450:     return 'attack'
451: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.00022637844085693362 then:
452:     return 'attack'
453: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['P_CAN_ID_394'] <= 0.5 then:
454:     return 'attack'
455: else
456:     'normal'
457: else if row['Arbitration_ID'] == 43' then:
458:     if row['D0'] >= 4.5 then:
459:         return 'attack'
460:     else if row['D1'] >= 16.5 then:
461:         return 'attack'
462:     else if row['D0'] <= 3.5 then:
463:         return 'attack'
464:     else
465:         'normal'
466: else if row['Arbitration_ID'] == 44E' then:
467:     if row['TimeInterval'] <= 0.00023746490478515625 then:
468:         return 'attack'
469:     else if row['TimeInterval'] >= 0.00029790401458740234 then:
470:         return 'attack'
471:     else if row['TimeInterval'] <= 0.00023746490478515625 and row['P_CAN_ID_387'] >= 0.5 then:
472:         return 'attack'
473:     else if row['TimeInterval'] >= 0.00029790401458740234 and row['P_CAN_ID_329'] >= 0.5 then:
474:         return 'attack'
475:     else if row['TimeInterval'] >= 0.00029790401458740234 and row['P_CAN_ID_386'] >= 0.5 then:
476:         return 'attack'
477:     else if row['TimeInterval'] <= 0.00021588802337646484 and row['P_CAN_ID_386'] >= 0.5 then:
478:         return 'attack'
479:     else if row['TimeInterval'] <= 0.00021588802337646484 and row['TimeInterval'] >= 0.00020825862884521484 and row['P_CAN_ID_140'] >= 0.5 then:
480:         return 'attack'
481:     else if row['TimeInterval'] >= 0.0002113580703735318 and row['TimeInterval'] <= 0.000218484878540039 and row['P_CAN_ID_329'] >= 0.5 then:
482:         return 'attack'
483:     else
484:         'normal'
485: else if row['Arbitration_ID'] == 48C' then:
486:     if row['D2'] >= 3.5 then:
487:         return 'attack'
488:     else if row['P_CAN_ID_58B'] <= 0.5 and row['TimeInterval'] >= 0.0012749433517456055 then:
489:         return 'attack'
490:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['P_CAN_ID_386'] >= 0.5 then:
491:         return 'attack'
492:     else if row['TimeInterval'] <= 0.00024020671844482422 and row['TimeInterval'] >= 0.00021827220916748047 and row['P_CAN_ID_2B0'] >= 0.5 then:
493:         return 'attack'
494:     else if row['D1'] <= 32.5 and row['TimeInterval'] >= 0.0002275705337524414 and row['TimeInterval'] <= 0.00023305416107177732 then:
495:         return 'attack'
496:     else
497:         'normal'
498: else if row['Arbitration_ID'] == 49F' then:
499:     if row['D1'] <= 254.5 then:
500:         return 'attack'
501:     else if row['TimeInterval'] >= 0.0013284683227539062 then:
502:         return 'attack'
503:     else if row['TimeInterval'] <= 0.00023806095123291016 and row['P_CAN_ID_453'] >= 0.5 then:
504:         return 'attack'
505:     else if row['TimeInterval'] >= 0.00034165382385253906 and row['TimeInterval'] <= 0.0011444091796875 then:
506:         return 'attack'

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507:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.00023114681243896482 then:
508:         return 'attack'
509:     else if row['TimeInterval'] >= 0.00034165382385253906 and row['TimeInterval'] <= 0.001280069351196289 then:
510:         return 'attack'
511:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['TimeInterval'] >= 0.00023245811462402344 then:
512:         return 'attack'
513:     else
514:         'normal'
515:     else if row['Arbitration_ID'] == 50A' then:
516:         if row['D0'] >= 11.5 then:
517:             return 'attack'
518:         else if row['D0'] <= 8.5 then:
519:             return 'attack'
520:         else if row['TimeInterval'] <= 0.00023090839385986328 and row['TimeInterval'] >= 0.00022816658020019529 then:
521:             return 'attack'
522:         else
523:             'normal'
524:     else if row['Arbitration_ID'] == 50C' then:
525:         if row['D2'] >= 3.5 then:
526:             return 'attack'
527:         else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['D0'] <= 63.5 then:
528:             return 'attack'
529:         else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['TimeInterval'] >= 0.00027501583099365234 then:
530:             return 'attack'
531:         else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
532:             return 'attack'
533:         else if row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['TimeInterval'] >= 0.00027501583099365234 then:
534:             return 'attack'
535:         else if row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
536:             return 'attack'
537:         else
538:             'normal'
539:     else if row['Arbitration_ID'] == 50E' then:
540:         if row['D4'] >= 10.5 then:
541:             return 'attack'
542:         else if row['D3'] >= 32.5 then:
543:             return 'attack'
544:         else if row['TimeInterval'] >= 0.00022423267364501953 and row['P_CAN_ID_470'] <= 0.5 and row['TimeInterval'] <= 0.00022685527801513672 then:
545:             return 'attack'
546:         else if row['P_CAN_ID_507'] <= 0.5 and row['P_CAN_ID_50C'] <= 0.5 and row['TimeInterval'] >= 0.0009480714797973633 then:
547:             return 'attack'
548:         else if row['TimeInterval'] <= 0.00022840499877929685 and row['TimeInterval'] >= 0.00022709369659423828 then:
549:             return 'attack'
550:         else if row['TimeInterval'] >= 0.0004830360412597656 and row['P_CAN_ID_507'] <= 0.5 then:
551:             return 'attack'
552:         else if row['TimeInterval'] >= 0.00022423267364501953 and row['TimeInterval'] <= 0.00022840499877929685 and row['P_CAN_ID_470'] <= 0.5 then:
553:             return 'attack'
554:         else if row['TimeInterval'] >= 0.0003540515899658203 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.0003758668899536133 then:
555:             return 'attack'
556:         else
557:             'normal'
558:     else if row['Arbitration_ID'] == 52A' then:
559:         if row['D4'] >= 2.5 then:
560:             return 'attack'
561:         else if row['D7'] >= 136.5 and row['TimeInterval'] >= 0.00035750865936279297 then:
562:             return 'attack'
563:         else if row['D7'] >= 136.5 and row['TimeInterval'] <= 0.0002321004867553711 then:
564:             return 'attack'
565:         else
566:             'normal'
567:     else if row['Arbitration_ID'] == 53B' then:
568:         if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 then:
569:             return 'attack'
570:         else if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 then:
571:             return 'attack'
572:         else if row['P_CAN_ID_4CB'] <= 0.5 and row['TimeInterval'] <= 0.00021898746490478518 and row['TimeInterval'] >= 0.0002142190933227539 then:
573:             return 'attack'
574:         else if row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0007170438766479492 then:
575:             return 'attack'
576:         else if row['TimeInterval'] <= 0.00024020671844482422 then:
577:             return 'attack'
578:         else if row['TimeInterval'] >= 0.00030219554901123047 then:
579:             return 'attack'
580:         else
581:             'normal'
582:     else if row['Arbitration_ID'] == 53E' then:
583:         if row['D4'] <= 7.5 then:
584:             return 'attack'
585:         else if row['D5'] >= 208.0 then:
586:             return 'attack'
587:         else if row['D4'] >= 12.5 and row['TimeInterval'] <= 0.000240325927734375 then:
588:             return 'attack'
589:         else if row['D4'] >= 12.5 and row['TimeInterval'] >= 0.00033855438232421875 then:
590:             return 'attack'
591:         else if row['TimeInterval'] >= 0.00033855438232421875 then:

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592:     return 'attack'
593: else if row['D4'] >= 12.5 and row['D5'] <= 131.5 then:
594:     return 'attack'
595: else if row['D4'] >= 12.5 and row['D5'] >= 131.5 and row['P_CAN_ID_4A7'] <= 0.5 then:
596:     return 'attack'
597: else if row['TimeInterval'] >= 0.00022852420806884766 and row['D5'] <= 133.5 and row['TimeInterval'] <= 0.00023150444030761716 then:
598:     return 'attack'
599: else
600:     'normal'
601: else if row['Arbitration_ID'] == 53F then:
602:     if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0010530948638916016 then:
603:         return 'attack'
604:     else if row['P_CAN_ID_4A9'] <= 0.5 and row['TimeInterval'] >= 0.00021088123321533203 and row['TimeInterval'] <= 0.00021398067474365237 then:
605:         return 'attack'
606:     else if row['P_CAN_ID_4A9'] <= 0.5 and row['TimeInterval'] >= 0.00035858154296875 and row['TimeInterval'] <= 0.00070953369140625 then:
607:         return 'attack'
608:     else if row['TimeInterval'] >= 0.00021088123321533203 and row['P_CAN_ID_52A'] >= 0.5 and row['TimeInterval'] <= 0.00022304058074951172 then:
609:         return 'attack'
610:     else if row['P_CAN_ID_2B0'] <= 0.5 and row['TimeInterval'] <= 0.0009695291519165039 and row['TimeInterval'] >= 0.00070953369140625 then:
611:         return 'attack'
612:     else if row['TimeInterval'] <= 0.00022089481353759766 then:
613:         return 'attack'
614:     else if row['TimeInterval'] >= 0.00031447410583496094 then:
615:         return 'attack'
616:     else if row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022304058074951172 then:
617:         return 'attack'
618:     else if row['TimeInterval'] <= 0.00023341178894042966 and row['TimeInterval'] >= 0.00023055076599121094 then:
619:         return 'attack'
620:     else
621:         'normal'
622: else if row['Arbitration_ID'] == 57F then:
623:     if row['D3'] >= 1.5 then:
624:         return 'attack'
625:     else if row['D7'] >= 2.5 then:
626:         return 'attack'
627:     else if row['TimeInterval'] >= 0.0009579658508300781 then:
628:         return 'attack'
629:     else if row['TimeInterval'] >= 0.00031244754791259766 and row['P_CAN_ID_568'] <= 0.5 then:
630:         return 'attack'
631:     else
632:         'normal'
633: else if row['Arbitration_ID'] == 58B then:
634:     if row['D1'] >= 3.5 then:
635:         return 'attack'
636:     else if row['P_CAN_ID_48A'] <= 0.5 and row['TimeInterval'] <= 0.0002356767654418945 and row['TimeInterval'] >= 0.0002321004867553711 then:
637:         return 'attack'
638:     else
639:         'normal'
640: else if row['Arbitration_ID'] == 140 then:
641:     if row['D4'] >= 32.5 then:
642:         return 'attack'
643:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] >= 0.0009586811065673828 then:
644:         return 'attack'
645:     else if row['D3'] <= 107.5 and row['D1'] >= 128.5 then:
646:         return 'attack'
647:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] >= 0.0003088712692260742 and row['P_CAN_ID_000'] <= 0.5 then:
648:         return 'attack'
649:     else if row['TimeInterval'] >= 0.0009586811065673828 then:
650:         return 'attack'
651:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] <= 0.00024688243865966797 then:
652:         return 'attack'
653:     else
654:         'normal'
655: else if row['Arbitration_ID'] == 220 then:
656:     if row['D4'] >= 1.5 and row['TimeInterval'] >= 0.0017951726913452148 then:
657:         return 'attack'
658:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['D6'] <= 15.5 then:
659:         return 'attack'
660:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['TimeInterval'] >= 0.0005820989608764648 then:
661:         return 'attack'
662:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['P_CAN_ID_329'] >= 0.5 then:
663:         return 'attack'
664:     else if row['D4'] >= 1.5 and row['D5'] <= 244.5 and row['P_CAN_ID_260'] >= 0.5 then:
665:         return 'attack'
666:     else if row['D4'] >= 1.5 and row['TimeInterval'] <= 0.00023996829986572266 and row['P_CAN_ID_329'] >= 0.5 then:
667:         return 'attack'
668:     else if row['D4'] >= 1.5 and row['D6'] <= 15.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
669:         return 'attack'
670:     else if row['D4'] >= 1.5 and row['D0'] >= 16.5 and row['P_CAN_ID_329'] >= 0.5 then:
671:         return 'attack'
672:     else if row['D4'] >= 1.5 and row['TimeInterval'] >= 0.0005820989608764648 and row['D0'] >= 26.5 then:
673:         return 'attack'
674:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 then:
675:         return 'attack'
676:     else if row['D4'] >= 1.5 and row['P_CAN_ID_153'] <= 0.5 then:

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677:     return 'attack'
678: else if row['D4'] >= 1.5 and row['P_CAN_ID_153'] >= 0.5 and row['TimeInterval'] >= 0.0003529787063598633 then:
679:     return 'attack'
680: else if row['D2'] >= 130.5 and row['P_CAN_ID_153'] <= 0.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
681:     return 'attack'
682: else if row['P_CAN_ID_153'] >= 0.5 and row['D5'] <= 26.5 and row['TimeInterval'] >= 0.0003529787063598633 then:
683:     return 'attack'
684: else
685:     'normal'
686: else if row['Arbitration_ID'] == 260 then:
687:     if row['D3'] >= 48.5 then:
688:         return 'attack'
689:     else if row['D3'] <= 47.5 then:
690:         return 'attack'
691:     else if row['D5'] >= 189.5 and row['D4'] >= 254.5 and row['D0'] <= 5.5 then:
692:         return 'attack'
693:     else
694:         'normal'
695: else if row['Arbitration_ID'] == 329 then:
696:     if row['D7'] >= 16.5 then:
697:         return 'attack'
698:     else if row['D4'] >= 49.5 and row['TimeInterval'] >= 0.0005239248275756836 and row['P_CAN_ID_2B0'] >= 0.5 then:
699:         return 'attack'
700:     else if row['D1'] >= 198.5 and row['D0'] >= 132.5 and row['D0'] <= 213.5 then:
701:         return 'attack'
702:     else if row['D4'] >= 49.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
703:         return 'attack'
704:     else if row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['D5'] <= 44.5 then:
705:         return 'attack'
706:     else if row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
707:         return 'attack'
708:     else if row['D1'] >= 198.5 and row['D5'] >= 44.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
709:         return 'attack'
710:     else
711:         'normal'
712: else if row['Arbitration_ID'] == 366 then:
713:     if row['DLC'] >= 7.5 then:
714:         return 'attack'
715:     else if row['D2'] >= 31.5 and row['D5'] <= 3.5 then:
716:         return 'attack'
717:     else if row['TimeInterval'] >= 0.0003230571746826172 and row['D1'] <= 14.5 and row['D3'] >= 53.5 then:
718:         return 'attack'
719:     else if row['TimeInterval'] >= 0.0003230571746826172 and row['D3'] >= 54.5 and row['D5'] <= 1.5 then:
720:         return 'attack'
721:     else if row['TimeInterval'] >= 0.0003230571746826172 and row['P_CAN_ID_140'] >= 0.5 and row['D5'] <= 1.5 then:
722:         return 'attack'
723:     else if row['P_CAN_ID_356'] <= 0.5 and row['TimeInterval'] >= 0.0003230571746826172 then:
724:         return 'attack'
725:     else if row['D5'] <= 3.5 and row['D4'] <= 44.5 and row['TimeInterval'] >= 0.0003230571746826172 then:
726:         return 'attack'
727:     else if row['TimeInterval'] <= 0.00020825862884521484 and row['D3'] >= 53.5 and row['D5'] <= 1.5 then:
728:         return 'attack'
729:     else
730:         'normal'
731: else if row['Arbitration_ID'] == 367 then:
732:     if row['P_CAN_ID_366'] <= 0.5 and row['D4'] >= 12.5 then:
733:         return 'attack'
734:     else if row['TimeInterval'] <= 0.00023639202117919922 and row['D3'] >= 63.5 then:
735:         return 'attack'
736:     else if row['TimeInterval'] >= 0.0003033876419067383 and row['D3'] >= 63.5 then:
737:         return 'attack'
738:     else if row['D6'] >= 217.5 and row['D6'] <= 227.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
739:         return 'attack'
740:     else if row['D6'] >= 217.5 and row['D4'] <= 3.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
741:         return 'attack'
742:     else if row['D7'] <= 2.5 and row['D6'] >= 33.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
743:         return 'attack'
744:     else if row['D6'] >= 227.5 and row['D4'] <= 3.5 and row['TimeInterval'] >= 0.0004284381866455078 then:
745:         return 'attack'
746:     else if row['P_CAN_ID_366'] <= 0.5 and row['TimeInterval'] >= 0.0004284381866455078 then:
747:         return 'attack'
748:     else if row['P_CAN_ID_366'] >= 0.5 and row['D7'] <= 7.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
749:         return 'attack'
750:     else if row['P_CAN_ID_366'] <= 0.5 and row['TimeInterval'] >= 0.0003033876419067383 and row['D7'] <= 7.5 then:
751:         return 'attack'
752:     else if row['TimeInterval'] <= 0.00023639202117919922 and row['D7'] <= 7.5 and row['P_CAN_ID_340'] >= 0.5 then:
753:         return 'attack'
754:     else if row['TimeInterval'] <= 0.00023639202117919922 and row['D6'] >= 217.5 and row['D4'] <= 3.5 then:
755:         return 'attack'
756:     else if row['TimeInterval'] >= 0.0003033876419067383 and row['D7'] <= 10.5 and row['D6'] >= 217.5 then:
757:         return 'attack'
758:     else
759:         'normal'
760: else if row['Arbitration_ID'] == 368 then:
761:     if row['P_CAN_ID_367'] <= 0.5 and row['D4'] >= 3.5 then:

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762:     return 'attack'
763: else if row['D5'] <= 118.5 and row['TimeInterval'] >= 0.0016666650772094727 then:
764:     return 'attack'
765: else if row['D7'] >= 64.5 and row['TimeInterval'] >= 0.0016666650772094727 then:
766:     return 'attack'
767: else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_220'] >= 0.5 and row['D1'] <= 1.5 then:
768:     return 'attack'
769: else if row['TimeInterval'] >= 0.0003129243850708008 and row['D5'] <= 38.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
770:     return 'attack'
771: else if row['D7'] <= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.00023901462554931638 then:
772:     return 'attack'
773: else if row['D5'] >= 12.5 and row['TimeInterval'] >= 0.0007234811782836914 and row['D5'] <= 24.5 then:
774:     return 'attack'
775: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] >= 0.0007234811782836914 then:
776:     return 'attack'
777: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] <= 0.0002351999282836914 and row['D1'] <= 3.5 then:
778:     return 'attack'
779: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] >= 0.0003129243850708008 and row['D1'] <= 3.5 then:
780:     return 'attack'
781: else
782:     'normal'
783: else if row['Arbitration_ID'] == 389 then:
784:     if row['TimeInterval'] >= 0.00030171871185302734 and row['D4'] >= 1.5 then:
785:         return 'attack'
786:     else if row['D4'] >= 1.5 and row['D3'] <= 47.5 then:
787:         return 'attack'
788:     else if row['D4'] >= 1.5 and row['P_CAN_ID_140'] >= 0.5 then:
789:         return 'attack'
790:     else if row['D4'] >= 1.5 and row['P_CAN_ID_260'] >= 0.5 then:
791:         return 'attack'
792:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and row['P_CAN_ID_329'] >= 0.5 then:
793:         return 'attack'
794:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and row['D6'] <= 29.5 then:
795:         return 'attack'
796:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['D3'] <= 47.5 and row['P_CAN_ID_340'] >= 0.5 then:
797:         return 'attack'
798:     else if row['P_CAN_ID_421'] <= 0.5 and row['D4'] >= 1.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
799:         return 'attack'
800:     else if row['D3'] <= 47.5 and row['D6'] <= 132.5 and row['TimeInterval'] >= 0.0010281801223754883 then:
801:         return 'attack'
802:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.00023043155670166016 and row['P_CAN_ID_368'] >= 0.5 then:
803:         return 'attack'
804:     else if row['TimeInterval'] >= 0.0010281801223754883 then:
805:         return 'attack'
806:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 then:
807:         return 'attack'
808:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['P_CAN_ID_368'] >= 0.5 then:
809:         return 'attack'
810:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D3'] <= 47.5 and row['P_CAN_ID_329'] >= 0.5 then:
811:         return 'attack'
812:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_421'] <= 0.5 and row['P_CAN_ID_000'] <= 0.5 then:
813:         return 'attack'
814:     else if row['P_CAN_ID_421'] <= 0.5 and row['TimeInterval'] >= 0.00022852420806884766 and row['TimeInterval'] <= 0.0002321004867553711 then:
815:         return 'attack'
816:     else
817:         'normal'
818: else if row['Arbitration_ID'] == 394 then:
819:     if row['D7'] <= 247.5 and row['D0'] >= 1.5 then:
820:         return 'attack'
821:     else if row['D7'] <= 247.5 and row['D5'] >= 84.5 and row['TimeInterval'] <= 0.00023901462554931638 then:
822:         return 'attack'
823:     else if row['D7'] <= 247.5 and row['TimeInterval'] >= 0.00036585330963134766 and row['P_CAN_ID_387'] >= 0.5 then:
824:         return 'attack'
825:     else if row['D6'] >= 62.5 and row['D5'] >= 84.5 and row['TimeInterval'] <= 0.00023615360260009766 then:
826:         return 'attack'
827:     else
828:         'normal'
829: else if row['Arbitration_ID'] == 410 then:
830:     if row['D4'] >= 1.5 then:
831:         return 'attack'
832:     else if row['P_CAN_ID_436'] <= 0.5 and row['P_CAN_ID_340'] <= 0.5 and row['TimeInterval'] >= 0.0004889965057373047 then:
833:         return 'attack'
834:     else if row['TimeInterval'] >= 0.0003629922866821289 then:
835:         return 'attack'
836:     else if row['TimeInterval'] >= 0.0002290010452270508 and row['TimeInterval'] <= 0.0002301931381225586 then:
837:         return 'attack'
838:     else if row['P_CAN_ID_436'] <= 0.5 and row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.0002301931381225586 then:
839:         return 'attack'
840:     else if row['P_CAN_ID_436'] <= 0.5 and row['TimeInterval'] >= 0.00022709369659423828 and row['TimeInterval'] <= 0.0002290010452270508 then:
841:         return 'attack'
842:     else
843:         'normal'
844: else if row['Arbitration_ID'] == 412 then:
845:     if row['D3'] >= 12.5 then:
846:         return 'attack'

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847:   else if row['D3'] <= 11.5 then:
848:       return 'attack'
849:   else if row['TimeInterval'] >= 0.0003401041030883789 and row['P_CAN_ID_260'] <= 0.5 then:
850:       return 'attack'
851:   else if row['TimeInterval'] <= 0.00023043155670166016 and row['TimeInterval'] >= 0.00022780895233154294 then:
852:       return 'attack'
853:   else if row['TimeInterval'] <= 0.00022780895233154294 and row['TimeInterval'] >= 0.00022614002227783203 then:
854:       return 'attack'
855:   else
856:       'normal'
857:   else if row['Arbitration_ID'] == 420 then:
858:       if row['TimeInterval'] >= 0.00030171871185302734 and row['D4'] <= 251.5 then:
859:           return 'attack'
860:       else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 then:
861:           return 'attack'
862:       else if row['D4'] <= 251.5 and row['P_CAN_ID_368'] >= 0.5 then:
863:           return 'attack'
864:       else if row['D0'] >= 208.5 and row['TimeInterval'] >= 0.0006350278854370117 then:
865:           return 'attack'
866:       else if row['D0'] <= 112.5 and row['D0'] >= 80.5 and row['TimeInterval'] >= 0.0006350278854370117 then:
867:           return 'attack'
868:       else if row['D4'] <= 251.5 and row['TimeInterval'] <= 0.00022089481353759766 and row['P_CAN_ID_164'] >= 0.5 then:
869:           return 'attack'
870:       else if row['TimeInterval'] >= 0.0006350278854370117 then:
871:           return 'attack'
872:       else if row['D4'] <= 251.5 and row['TimeInterval'] <= 0.00022089481353759766 then:
873:           return 'attack'
874:       else if row['P_CAN_ID_38D'] <= 0.5 and row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022304058074951172 then:
875:           return 'attack'
876:       else if row['TimeInterval'] <= 0.00022518634796142578 and row['TimeInterval'] >= 0.00021350383758544922 and row['P_CAN_ID_368'] >= 0.5 then:
877:           return 'attack'
878:       else
879:           'normal'
880:   else if row['Arbitration_ID'] == 421 then:
881:       if row['TimeInterval'] >= 0.00029850006103515625 and row['D0'] <= 253.5 then:
882:           return 'attack'
883:       else if row['TimeInterval'] >= 0.00029850006103515625 and row['P_CAN_ID_386'] >= 0.5 then:
884:           return 'attack'
885:       else if row['D0'] <= 253.5 and row['P_CAN_ID_329'] >= 0.5 then:
886:           return 'attack'
887:       else if row['D0'] <= 253.5 and row['P_CAN_ID_368'] >= 0.5 then:
888:           return 'attack'
889:       else if row['D7'] <= 118.5 and row['D0'] <= 253.5 and row['D7'] >= 91.5 then:
890:           return 'attack'
891:       else if row['D0'] <= 253.5 and row['P_CAN_ID_260'] >= 0.5 and row['D7'] >= 14.5 then:
892:           return 'attack'
893:       else if row['D0'] <= 253.5 then:
894:           return 'attack'
895:       else if row['TimeInterval'] >= 0.0006260871887207031 then:
896:           return 'attack'
897:       else if row['TimeInterval'] <= 0.0002275705337524414 and row['P_CAN_ID_368'] >= 0.5 then:
898:           return 'attack'
899:       else if row['P_CAN_ID_420'] <= 0.5 and row['TimeInterval'] >= 0.00022542476654052732 and row['TimeInterval'] <= 0.0002275705337524414 then:
900:           return 'attack'
901:       else
902:           'normal'
903:   else if row['Arbitration_ID'] == 436 then:
904:       if row['DLC'] >= 6.0 then:
905:           return 'attack'
906:       else if row['TimeInterval'] >= 0.000746607780456543 then:
907:           return 'attack'
908:       else if row['TimeInterval'] <= 0.0001556873321533203 and row['TimeInterval'] >= 0.0001538991928100586 then:
909:           return 'attack'
910:       else if row['TimeInterval'] <= 0.000746607780456543 and row['TimeInterval'] >= 0.0003085136413574219 then:
911:           return 'attack'
912:       else
913:           'normal'
914:   else if row['Arbitration_ID'] == 453 then:
915:       if row['DLC'] >= 6.5 then:
916:           return 'attack'
917:       else if row['TimeInterval'] >= 0.0002671480178833008 and row['P_CAN_ID_2B0'] >= 0.5 then:
918:           return 'attack'
919:       else if row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['TimeInterval'] >= 0.0002671480178833008 then:
920:           return 'attack'
921:       else if row['D2'] >= 143.5 and row['TimeInterval'] <= 0.00016760826110839844 and row['P_CAN_ID_2B0'] >= 0.5 then:
922:           return 'attack'
923:       else if row['TimeInterval'] <= 0.00017511844635009766 and row['D2'] >= 143.5 and row['P_CAN_ID_140'] >= 0.5 then:
924:           return 'attack'
925:       else if row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['TimeInterval'] <= 0.00016760826110839844 then:
926:           return 'attack'
927:       else
928:           'normal'
929:   else if row['Arbitration_ID'] == 470 then:
930:       if row['D3'] >= 4.5 and row['TimeInterval'] >= 0.0011584758758544922 then:
931:           return 'attack'

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932:   else if row['TimeInterval'] >= 0.000607013702392578 and row['P_CAN_ID_140'] >= 0.5 then:
933:       return 'attack'
934:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_260'] >= 0.5 then:
935:       return 'attack'
936:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
937:       return 'attack'
938:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_140'] >= 0.5 then:
939:       return 'attack'
940:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D2'] >= 4.5 and row['D1'] <= 64.5 then:
941:       return 'attack'
942:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D7'] <= 104.5 and row['D5'] >= 80.5 then:
943:       return 'attack'
944:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D5'] >= 80.5 and row['D3'] >= 4.5 then:
945:       return 'attack'
946:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D7'] <= 80.5 and row['D3'] >= 4.5 then:
947:       return 'attack'
948:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D3'] >= 4.5 and row['D7'] >= 141.5 then:
949:       return 'attack'
950:   else if row['P_CAN_ID_453'] <= 0.5 and row['D2'] >= 4.5 and row['TimeInterval'] >= 0.0011584758758544922 then:
951:       return 'attack'
952:   else if row['D2'] >= 4.5 and row['D1'] <= 64.5 and row['TimeInterval'] <= 0.00022375583648681638 then:
953:       return 'attack'
954:   else if row['D5'] >= 80.5 and row['TimeInterval'] <= 0.00022375583648681638 and row['D7'] <= 65.5 then:
955:       return 'attack'
956:   else if row['TimeInterval'] <= 0.00022375583648681638 and row['D7'] <= 80.5 and row['D3'] >= 4.5 then:
957:       return 'attack'
958:   else if row['TimeInterval'] >= 0.0011584758758544922 then:
959:       return 'attack'
960:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 then:
961:       return 'attack'
962:   else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_453'] <= 0.5 then:
963:       return 'attack'
964:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['TimeInterval'] >= 0.00021898746490478518 and row['P_CAN_ID_140'] >= 0.5 then:
965:       return 'attack'
966:   else if row['P_CAN_ID_368'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022375583648681638 then:
967:       return 'attack'
968:   else
969:       'normal'
970:   else if row['Arbitration_ID'] == 479 then:
971:       if row['D0'] >= 82.5 then:
972:           return 'attack'
973:       else if row['D0'] <= 73.5 then:
974:           return 'attack'
975:       else if row['D0'] <= 75.5 and row['TimeInterval'] >= 0.0003428459167480469 then:
976:           return 'attack'
977:       else if row['D0'] <= 75.5 and row['P_CAN_ID_391'] <= 0.5 and row['TimeInterval'] <= 0.00022923946380615237 then:
978:           return 'attack'
979:       else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.0003428459167480469 and row['D0'] >= 76.5 then:
980:           return 'attack'
981:       else if row['TimeInterval'] <= 0.00023627281188964844 and row['D0'] <= 75.5 and row['TimeInterval'] >= 0.0002199411392211914 then:
982:           return 'attack'
983:       else
984:           'normal'
985:   else if row['Arbitration_ID'] == 483 then:
986:       if row['D0'] >= 23.5 then:
987:           return 'attack'
988:       else if row['D0'] <= 18.5 then:
989:           return 'attack'
990:       else if row['TimeInterval'] >= 0.0011943578720092773 then:
991:           return 'attack'
992:       else if row['TimeInterval'] >= 0.00023114681243896482 and row['TimeInterval'] <= 0.00023329257965087888 then:
993:           return 'attack'
994:       else
995:           'normal'
996:   else if row['Arbitration_ID'] == 484 then:
997:       if row['D4'] >= 3.5 then:
998:           return 'attack'
999:       else if row['TimeInterval'] >= 0.00034737586975097656 then:
1000:           return 'attack'
1001:       else if row['TimeInterval'] >= 0.0002290010452270508 and row['TimeInterval'] <= 0.00022971630096435547 then:
1002:           return 'attack'
1003:       else if row['TimeInterval'] <= 0.00023353099822998047 and row['D0'] >= 47.5 and row['TimeInterval'] >= 0.00023245811462402344 then:
1004:           return 'attack'
1005:       else
1006:           'normal'
1007:   else if row['Arbitration_ID'] == 485 then:
1008:       if row['DLC'] >= 6.0 then:
1009:           return 'attack'
1010:       else if row['P_CAN_ID_387'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] >= 0.001543879508972168 then:
1011:           return 'attack'
1012:       else if row['D0'] <= 2.5 and row['TimeInterval'] >= 0.0002605915069580078 then:
1013:           return 'attack'
1014:       else if row['TimeInterval'] >= 0.0001494884490966797 and row['TimeInterval'] <= 0.00015294551849365234 then:
1015:           return 'attack'
1016:       else if row['D0'] <= 2.5 and row['TimeInterval'] <= 0.00015795230865478516 and row['P_CAN_ID_453'] >= 0.5 then:

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1017:     return 'attack'
1018: else if row['TimeInterval'] <= 0.00015342235565185547 and row['P_CAN_ID_470'] >= 0.5 and row['TimeInterval'] >= 0.00015294551849365234 then:
1019:     return 'attack'
1020: else
1021:     'normal'
1022: else if row['Arbitration_ID'] == '490' then:
1023:     if row['D0'] >= 1.5 then:
1024:         return 'attack'
1025:     else if row['D2'] >= 8.5 and row['TimeInterval'] <= 0.0002294778823852539 then:
1026:         return 'attack'
1027:     else if row['TimeInterval'] <= 0.0002294778823852539 and row['P_CAN_ID_340'] >= 0.5 then:
1028:         return 'attack'
1029:     else if row['D7'] >= 146.5 and row['TimeInterval'] <= 0.0002294778823852539 and row['P_CAN_ID_4F1'] >= 0.5 then:
1030:         return 'attack'
1031:     else if row['D5'] >= 112.5 and row['TimeInterval'] >= 0.0012420415878295898 and row['P_CAN_ID_386'] >= 0.5 then:
1032:         return 'attack'
1033:     else if row['TimeInterval'] <= 0.0002294778823852539 and row['TimeInterval'] >= 0.00022494792938232422 and row['P_CAN_ID_389'] >= 0.5 then:
1034:         return 'attack'
1035:     else
1036:         'normal'
1037: else if row['Arbitration_ID'] == '492' then:
1038:     if row['D1'] <= 253.5 then:
1039:         return 'attack'
1040:     else if row['TimeInterval'] <= 0.00024020671844482422 and row['P_CAN_ID_220'] >= 0.5 then:
1041:         return 'attack'
1042:     else if row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] <= 0.00023365020751953125 then:
1043:         return 'attack'
1044:     else if row['TimeInterval'] <= 0.00023365020751953125 and row['TimeInterval'] >= 0.00022923946380615237 then:
1045:         return 'attack'
1046:     else if row['TimeInterval'] >= 0.0006629228591918945 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.000764012336730957 then:
1047:         return 'attack'
1048:     else
1049:         'normal'
1050: else if row['Arbitration_ID'] == '495' then:
1051:     if row['D5'] >= 2.5 then:
1052:         return 'attack'
1053:     else if row['TimeInterval'] <= 0.0002204179763793945 and row['P_CAN_ID_386'] <= 0.5 and row['TimeInterval'] >= 0.0002199411392211914 then:
1054:         return 'attack'
1055:     else if row['TimeInterval'] >= 0.0003424882887939453 then:
1056:         return 'attack'
1057:     else if row['TimeInterval'] >= 0.00021922588348388672 and row['TimeInterval'] <= 0.0002199411392211914 then:
1058:         return 'attack'
1059:     else if row['TimeInterval'] <= 0.00022339820861816404 and row['P_CAN_ID_389'] >= 0.5 then:
1060:         return 'attack'
1061:     else if row['TimeInterval'] >= 0.0002204179763793945 and row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] <= 0.00022089481353759766 then:
1062:         return 'attack'
1063:     else
1064:         'normal'
1065: else if row['Arbitration_ID'] == '500' then:
1066:     if row['D0'] >= 1.5 then:
1067:         return 'attack'
1068:     else if row['TimeInterval'] >= 0.0010155439376831055 then:
1069:         return 'attack'
1070:     else if row['TimeInterval'] >= 0.0003679990768432617 and row['P_CAN_ID_140'] >= 0.5 then:
1071:         return 'attack'
1072:     else if row['TimeInterval'] >= 0.000545501708984375 and row['P_CAN_ID_386'] >= 0.5 then:
1073:         return 'attack'
1074:     else if row['TimeInterval'] >= 0.00023376941680908203 and row['TimeInterval'] <= 0.00023651123046875003 then:
1075:         return 'attack'
1076:     else if row['TimeInterval'] >= 0.0006865262985229492 and row['P_CAN_ID_2B0'] >= 0.5 then:
1077:         return 'attack'
1078:     else if row['P_CAN_ID_495'] <= 0.5 and row['D4'] >= 8.5 and row['TimeInterval'] >= 0.0007345676422119141 then:
1079:         return 'attack'
1080:     else if row['D4'] >= 8.5 and row['TimeInterval'] >= 0.00040400028228759766 and row['P_CAN_ID_2B0'] >= 0.5 then:
1081:         return 'attack'
1082:     else
1083:         'normal'
1084: else if row['Arbitration_ID'] == '507' then:
1085:     if row['DLC'] >= 6.0 then:
1086:         return 'attack'
1087:     else if row['TimeInterval'] >= 0.0007494688034057617 then:
1088:         return 'attack'
1089:     else if row['TimeInterval'] <= 0.00016510486602783203 and row['P_CAN_ID_4F1'] >= 0.5 then:
1090:         return 'attack'
1091:     else if row['TimeInterval'] >= 0.00015556812286376953 and row['TimeInterval'] <= 0.0001569986343383789 then:
1092:         return 'attack'
1093:     else if row['D0'] <= 7.5 and row['TimeInterval'] >= 0.00026547908782958984 and row['TimeInterval'] <= 0.0007494688034057617 then:
1094:         return 'attack'
1095:     else
1096:         'normal'
1097: else if row['Arbitration_ID'] == '520' then:
1098:     if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_164'] >= 0.5 then:
1099:         return 'attack'
1100:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_386'] >= 0.5 then:
1101:         return 'attack'

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1102: else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_329'] >= 0.5 then:
1103:     return 'attack'
1104: else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_389'] >= 0.5 then:
1105:     return 'attack'
1106: else if row['TimeInterval'] >= 0.00030553340911865234 then:
1107:     return 'attack'
1108: else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_329'] >= 0.5 then:
1109:     return 'attack'
1110: else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 then:
1111:     return 'attack'
1112: else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_389'] >= 0.5 then:
1113:     return 'attack'
1114: else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_140'] >= 0.5 then:
1115:     return 'attack'
1116: else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 then:
1117:     return 'attack'
1118: else if row['TimeInterval'] <= 0.00023949146270751953 and row['TimeInterval'] >= 0.00022649765014648438 and row['P_CAN_ID_260'] >= 0.5 then:
1119:     return 'attack'
1120: else if row['TimeInterval'] >= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] <= 0.0002213716506958008 then:
1121:     return 'attack'
1122: else if row['TimeInterval'] >= 0.00022649765014648438 and row['P_CAN_ID_50C'] >= 0.5 and row['TimeInterval'] <= 0.00023305416107177732 then:
1123:     return 'attack'
1124: else
1125:     'normal'
1126: else if row['Arbitration_ID'] == '541' then:
1127:     if row['D1'] >= 4.5 then:
1128:         return 'attack'
1129:     else if row['TimeInterval'] >= 0.00026857852935791016 and row['P_CAN_ID_2B0'] >= 0.5 then:
1130:         return 'attack'
1131:     else if row['TimeInterval'] <= 0.0002280473709106445 and row['TimeInterval'] >= 0.00022399425506591797 then:
1132:         return 'attack'
1133:     else if row['D1'] >= 3.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0009649991989135742 then:
1134:         return 'attack'
1135:     else if row['D1'] >= 3.5 and row['TimeInterval'] <= 0.0007129907608032227 and row['TimeInterval'] >= 0.0004055500030517578 then:
1136:         return 'attack'
1137:     else
1138:         'normal'
1139: else if row['Arbitration_ID'] == '544' then:
1140:     if row['D0'] <= 254.5 then:
1141:         return 'attack'
1142:     else if row['TimeInterval'] >= 0.0002244710922241211 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022685527801513672 then:
1143:         return 'attack'
1144:     else
1145:         'normal'
1146: else if row['Arbitration_ID'] == '553' then:
1147:     if row['D2'] <= 24.5 then:
1148:         return 'attack'
1149:     else if row['D1'] >= 1.5 then:
1150:         return 'attack'
1151:     else if row['P_CAN_ID_544'] <= 0.5 and row['TimeInterval'] >= 0.0008126497268676758 then:
1152:         return 'attack'
1153:     else if row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022459030151367188 then:
1154:         return 'attack'
1155:     else if row['TimeInterval'] >= 0.00035750865936279297 and row['TimeInterval'] <= 0.0003980398178100586 then:
1156:         return 'attack'
1157:     else
1158:         'normal'
1159: else if row['Arbitration_ID'] == '559' then:
1160:     if row['TimeInterval'] <= 0.000217437744140625 and row['P_CAN_ID_52A'] >= 0.5 then:
1161:         return 'attack'
1162:     else if row['TimeInterval'] <= 0.000217437744140625 and row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00020992755889892578 then:
1163:         return 'attack'
1164:     else if row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] >= 0.00020992755889892578 and row['TimeInterval'] <= 0.0002111196517944336 then:
1165:         return 'attack'
1166:     else if row['TimeInterval'] >= 0.00029349327087402344 then:
1167:         return 'attack'
1168:     else if row['TimeInterval'] <= 0.000217437744140625 then:
1169:         return 'attack'
1170:     else if row['TimeInterval'] >= 0.000217437744140625 and row['TimeInterval'] <= 0.00021922588348388672 then:
1171:         return 'attack'
1172:     else if row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['TimeInterval'] >= 0.00021922588348388672 then:
1173:         return 'attack'
1174:     else
1175:         'normal'
1176: else if row['Arbitration_ID'] == '563' then:
1177:     if row['D6'] >= 1.5 then:
1178:         return 'attack'
1179:     else
1180:         'normal'
1181: else if row['Arbitration_ID'] == '568' then:
1182:     if row['D4'] >= 128.5 then:
1183:         return 'attack'
1184:     else if row['D4'] <= 127.5 then:
1185:         return 'attack'
1186:     else if row['TimeInterval'] >= 0.0003466606140136719 and row['D3'] >= 142.5 then:

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1187:     return 'attack'
1188: else if row['TimeInterval'] >= 0.00022995471954345703 and row['TimeInterval'] <= 0.00023353099822998044 then:
1189:     return 'attack'
1190: else if row['TimeInterval'] >= 0.0009143352508544923 and row['D3'] <= 138.5 then:
1191:     return 'attack'
1192: else if row['D3'] >= 139.5 and row['TimeInterval'] <= 0.00022995471954345703 and row['TimeInterval'] >= 0.00022649765014648438 then:
1193:     return 'attack'
1194: else if row['D3'] >= 139.5 and row['D5'] <= 64.5 and row['TimeInterval'] >= 0.002015829086303711 then:
1195:     return 'attack'
1196: else if row['D3'] >= 141.5 and row['D5'] <= 64.5 and row['TimeInterval'] >= 0.0009143352508544923 then:
1197:     return 'attack'
1198: else
1199:     'normal'
1200: else if row['Arbitration_ID'] == '593' then:
1201:     if row['DLC'] >= 7.0 then:
1202:         return 'attack'
1203:     else if row['TimeInterval'] <= 0.00019514560699462888 and row['TimeInterval'] >= 0.00019133090972900393 then:
1204:         return 'attack'
1205:     else
1206:         'normal'
1207: else if row['Arbitration_ID'] == '572' then:
1208:     if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0003933906555175781 and row['TimeInterval'] >= 0.0003484487533569336 then:
1209:         return 'attack'
1210:     else if row['TimeInterval'] >= 0.00021183490753173828 and row['TimeInterval'] <= 0.00022542476654052734 and row['P_CAN_ID_329'] >= 0.5 then:
1211:         return 'attack'
1212:     else if row['TimeInterval'] >= 0.00020802021026611328 and row['TimeInterval'] <= 0.00022089481353759766 and row['P_CAN_ID_541'] >= 0.5 then:
1213:         return 'attack'
1214:     else if row['TimeInterval'] <= 0.00024056434631347656 then:
1215:         return 'attack'
1216:     else if row['TimeInterval'] >= 0.0003933906555175781 then:
1217:         return 'attack'
1218:     else
1219:         'normal'
1220: else if row['Arbitration_ID'] == '47F' then:
1221:     if row['D2'] <= 254.5 then:
1222:         return 'attack'
1223:     else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_2B0'] >= 0.5 then:
1224:         return 'attack'
1225:     else
1226:         'normal'
1227: else if row['Arbitration_ID'] == '48A' then:
1228:     if row['D5'] >= 2.5 and row['P_CAN_ID_470'] >= 0.5 then:
1229:         return 'attack'
1230:     else if row['D5'] >= 2.5 and row['P_CAN_ID_340'] >= 0.5 then:
1231:         return 'attack'
1232:     else if row['D5'] >= 2.5 and row['TimeInterval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 then:
1233:         return 'attack'
1234:     else if row['D5'] >= 2.5 and row['TimeInterval'] >= 0.00046002864837646484 and row['D6'] >= 32.5 then:
1235:         return 'attack'
1236:     else if row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['D6'] >= 32.5 then:
1237:         return 'attack'
1238:     else if row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['TimeInterval'] <= 0.00022554397583007812 then:
1239:         return 'attack'
1240:     else if row['D5'] >= 2.5 and row['D2'] >= 128.5 and row['D6'] >= 32.5 then:
1241:         return 'attack'
1242:     else if row['D5'] >= 2.5 and row['D6'] >= 32.5 and row['TimeInterval'] >= 0.0003553628921508789 then:
1243:         return 'attack'
1244:     else if row['D5'] >= 2.5 and row['P_CAN_ID_140'] <= 0.5 and row['TimeInterval'] <= 0.0002199411392211914 then:
1245:         return 'attack'
1246:     else if row['TimeInterval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 and row['D6'] <= 95.5 then:
1247:         return 'attack'
1248:     else
1249:         'normal'
1250: else if row['Arbitration_ID'] == '153' then:
1251:     if row['D3'] <= 254.5 and row['D1'] <= 129.5 then:
1252:         return 'attack'
1253:     else if row['D3'] <= 254.5 and row['P_CAN_ID_260'] >= 0.5 then:
1254:         return 'attack'
1255:     else if row['D3'] <= 254.5 and row['P_CAN_ID_340'] >= 0.5 then:
1256:         return 'attack'
1257:     else if row['D6'] >= 145.5 and row['D7'] >= 206.5 then:
1258:         return 'attack'
1259:     else if row['D6'] >= 145.5 and row['D7'] <= 45.5 then:
1260:         return 'attack'
1261:     else if row['D7'] <= 97.5 and row['D6'] >= 207.5 then:
1262:         return 'attack'
1263:     else if row['D3'] <= 254.5 and row['D7'] <= 126.5 and row['D6'] >= 175.5 then:
1264:         return 'attack'
1265:     else if row['D3'] <= 254.5 and row['D7'] >= 206.5 and row['D6'] >= 64.5 then:
1266:         return 'attack'
1267:     else if row['D3'] <= 254.5 and row['D7'] <= 206.5 and row['D6'] <= 17.5 then:
1268:         return 'attack'
1269:     else if row['D3'] <= 254.5 and row['D7'] <= 97.5 and row['D6'] >= 130.5 then:
1270:         return 'attack'
1271:     else if row['D7'] >= 126.5 and row['D6'] <= 145.5 and row['D6'] >= 97.5 then:

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1272:     return 'attack'
1273: else if row['D7'] <= 126.5 and row['D7'] >= 45.5 and row['D6'] <= 64.5 then:
1274:     return 'attack'
1275: else if row['D3'] <= 254.5 and row['D7'] >= 126.5 and row['D6'] <= 145.5 then:
1276:     return 'attack'
1277: else if row['D3'] <= 254.5 and row['D7'] <= 177.5 and row['D6'] >= 207.5 then:
1278:     return 'attack'
1279: else if row['D7'] <= 126.5 and row['P_CAN_ID_47F'] <= 0.5 and row['D6'] <= 48.5 then:
1280:     return 'attack'
1281: else
1282:     'normal'
1283: else if row['Arbitration_ID'] == '164' then:
1284:     if row['DLC'] >= 6.0 then:
1285:         return 'attack'
1286:     else
1287:         'normal'
1288: else if row['Arbitration_ID'] == '251' then:
1289:     if row['D4'] >= 0.5 then:
1290:         return 'attack'
1291:     else
1292:         'normal'
1293: else if row['Arbitration_ID'] == '340' then:
1294:     if row['TimeInterval'] <= 0.00023305416107177732 and row['D4'] <= 133.5 and row['D6'] >= 181.5 then:
1295:         return 'attack'
1296:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['D6'] <= 92.5 and row['D4'] >= 214.5 then:
1297:         return 'attack'
1298:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 and row['P_CAN_ID_220'] >= 0.5 then:
1299:         return 'attack'
1300:     else if row['D4'] >= 133.5 and row['D6'] <= 92.5 and row['D1'] >= 3.5 then:
1301:         return 'attack'
1302:     else if row['D4'] <= 133.5 and row['D0'] <= 251.5 and row['D6'] >= 181.5 then:
1303:         return 'attack'
1304:     else if row['D6'] >= 181.5 and row['D1'] >= 3.5 and row['D4'] <= 165.5 then:
1305:         return 'attack'
1306:     else if row['D6'] <= 181.5 and row['D1'] >= 3.5 and row['D4'] >= 214.5 then:
1307:         return 'attack'
1308:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 then:
1309:         return 'attack'
1310:     else
1311:         'normal'
1312: else if row['Arbitration_ID'] == '381' then:
1313:     if row['D2'] >= 64.5 and row['D7'] >= 5.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1314:         return 'attack'
1315:     else if row['TimeInterval'] <= 0.00023496150970458984 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1316:         return 'attack'
1317:     else if row['D5'] >= 140.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1318:         return 'attack'
1319:     else if row['D2'] >= 68.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1320:         return 'attack'
1321:     else if row['D2'] >= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] >= 0.0007737874984741211 then:
1322:         return 'attack'
1323:     else if row['TimeInterval'] <= 0.00023496150970458984 and row['D2'] <= 60.5 and row['D5'] >= 214.5 then:
1324:         return 'attack'
1325:     else if row['D5'] >= 140.5 and row['D2'] <= 60.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1326:         return 'attack'
1327:     else if row['D1'] >= 143.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1328:         return 'attack'
1329:     else if row['D7'] >= 5.5 and row['D2'] <= 60.5 and row['TimeInterval'] >= 0.00035369396209716797 then:
1330:         return 'attack'
1331:     else if row['D2'] >= 66.5 and row['D1'] >= 207.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1332:         return 'attack'
1333:     else if row['P_CAN_ID_2B0'] <= 0.5 and row['D2'] >= 65.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1334:         return 'attack'
1335:     else
1336:         'normal'
1337: else if row['Arbitration_ID'] == '386' then:
1338:     if row['D0'] >= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['P_CAN_ID_260'] >= 0.5 then:
1339:         return 'attack'
1340:     else if row['P_CAN_ID_260'] >= 0.5 and row['TimeInterval'] <= 0.00022995471954345703 then:
1341:         return 'attack'
1342:     else if row['D0'] <= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] >= 130.5 then:
1343:         return 'attack'
1344:     else if row['D0'] <= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['D2'] >= 121.5 then:
1345:         return 'attack'
1346:     else if row['D0'] <= 50.5 and row['TimeInterval'] >= 0.0006536245346069336 and row['P_CAN_ID_2B0'] >= 0.5 then:
1347:         return 'attack'
1348:     else if row['D5'] >= 65.5 and row['TimeInterval'] >= 0.0002988576889038086 and row['P_CAN_ID_260'] >= 0.5 then:
1349:         return 'attack'
1350:     else if row['TimeInterval'] <= 0.00022518634796142578 and row['D7'] <= 127.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
1351:         return 'attack'
1352:     else if row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] >= 130.5 and row['D2'] <= 121.5 then:
1353:         return 'attack'
1354:     else if row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] <= 130.5 and row['D2'] >= 121.5 then:
1355:         return 'attack'
1356:     else

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1357:     'normal'
1358: else if row['Arbitration_ID'] == '387' then:
1359:     if row['D6'] >= 14.5 and row['Arbitration_ID'] == '387' then:
1360:         return 'attack'
1361:     else
1362:         'normal'
1363: else if row['Arbitration_ID'] == '391' then:
1364:     if row['D6'] >= 15.5 then:
1365:         return 'attack'
1366:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['D6'] <= 11.5 and row['P_CAN_ID_153'] >= 0.5 then:
1367:         return 'attack'
1368:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['D6'] <= 9.5 and row['P_CAN_ID_492'] >= 0.5 then:
1369:         return 'attack'
1370:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] >= 0.000228762664794922 then:
1371:         return 'attack'
1372:     else
1373:         'normal'
1374: else if row['Arbitration_ID'] == '356' then:
1375:     if row['D0'] >= 0.5 then:
1376:         return 'attack'
1377:     else if row['TimeInterval'] <= 0.00024116039276123047 and row['D4'] <= 39.5 and row['P_CAN_ID_386'] >= 0.5 then:
1378:         return 'attack'
1379:     else if row['TimeInterval'] <= 0.00023281574249267578 and row['P_CAN_ID_164'] >= 0.5 then:
1380:         return 'attack'
1381:     else
1382:         'normal'
1383: else if row['Arbitration_ID'] == '38D' then:
1384:     if row['D6'] <= 253.5 then:
1385:         return 'attack'
1386:     else if row['P_CAN_ID_260'] >= 0.5 and row['TimeInterval'] >= 0.0020750761032104492 then:
1387:         return 'attack'
1388:     else if row['TimeInterval'] <= 0.00023424625396728518 and row['D2'] <= 73.5 and row['P_CAN_ID_220'] >= 0.5 then:
1389:         return 'attack'
1390:     else if row['D2'] <= 73.5 and row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
1391:         return 'attack'
1392:     else
1393:         'normal'
1394: else if row['Arbitration_ID'] == '53B' then:
1395:     if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 then:
1396:         return 'attack'
1397:     else if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 then:
1398:         return 'attack'
1399:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['TimeInterval'] <= 0.00021898746490478518 and row['TimeInterval'] >= 0.0002142190933227539 then:
1400:         return 'attack'
1401:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0007170438766479492 then:
1402:         return 'attack'
1403:     else if row['TimeInterval'] <= 0.00024020671844482422 then:
1404:         return 'attack'
1405:     else if row['TimeInterval'] >= 0.00030219554901123047 then:
1406:         return 'attack'
1407:     else
1408:         'normal'
1409: else if row['Arbitration_ID'] == '130' then:
1410:     if row['TimeInterval'] <= 0.00023496150970458984 and row['D5'] >= 7.5 then:
1411:         return 'attack'
1412:     else if row['TimeInterval'] >= 0.00035369396209716797 and row['D5'] >= 7.5 then:
1413:         return 'attack'
1414:     else if row['D5'] >= 7.5 and row['D0'] >= 16.5 then:
1415:         return 'attack'
1416:     else if row['D6'] >= 10.5 and row['D5'] >= 7.5 then:
1417:         return 'attack'
1418:     else if row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.00022637844085693362 and row['D0'] <= 4.5 then:
1419:         return 'attack'
1420:     else
1421:         'normal'
1422: else
1423:     'normal'

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