

## 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['Arbitration_ID'] == '2B0' then:
8:   if row['DLC'] >= 7.0 then:
9:     return 'attack'
10:   else if row['TimeInterval'] >= 0.0002846717834472656 and row['P_CAN_ID_164'] >= 0.5 then:
11:     return 'attack'
12:   else if row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] >= 0.0002846717834472656 and row['D5'] <= 33.5 then:
13:     return 'attack'
14:   else if row['D4'] >= 128.5 and row['TimeInterval'] <= 0.00019538402557373047 and row['P_CAN_ID_164'] >= 0.5 then:
15:     return 'attack'
16:   else if row['TimeInterval'] <= 0.00019538402557373047 and row['D1'] <= 1.5 and row['P_CAN_ID_164'] >= 0.5 then:
17:     return 'attack'
18:   else if row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] >= 0.0002846717834472656 then:
19:     return 'attack'
20:   else if row['P_CAN_ID_251'] <= 0.5 and row['D1'] <= 253.5 and row['TimeInterval'] <= 0.00019538402557373047 then:
21:     return 'attack'
22:   else
23:     'normal'
24: else if row['Arbitration_ID'] == '4A2' then:
25:   if row['DLC'] >= 5.0 then:
26:     return 'attack'
27:   else if row['TimeInterval'] >= 0.0002111195 and row['P_CAN_ID_38D'] >= 0.5 then:
28:     return 'attack'
29:   else if row['P_CAN_ID_485'] <= 0.5 and row['TimeInterval'] >= 0.0002111195 then:
30:     return 'attack'
31:   else if row['TimeInterval'] >= 0.0002111195 and row['TimeInterval'] <= 0.0006757975 then:
32:     return 'attack'
33:   else if row['TimeInterval'] <= 0.000119448 and row['TimeInterval'] >= 0.00011205650000000001 and row['P_CAN_ID_483'] <= 0.5 then:
34:     return 'attack'
35:   else
36:     'normal'
37: else if row['Arbitration_ID'] == '4A4' then:
38:   if row['D0'] >= 15.5 then:
39:     return 'attack'
40:   else if row['D0'] <= 12.5 then:
41:     return 'attack'
42:   else if row['TimeInterval'] >= 0.0003000495 then:
43:     return 'attack'
44:   else if row['TimeInterval'] <= 0.000235081 and row['TimeInterval'] >= 0.000208497 then:
45:     return 'attack'
46:   else
47:     'normal'
48: else if row['Arbitration_ID'] == '4A7' then:
49:   if row['DLC'] >= 5.0 then:
50:     return 'attack'
51:   else if row['TimeInterval'] >= 0.0004811286926269531 then:
52:     return 'attack'
53:   else if row['TimeInterval'] >= 0.00036263465881347656 then:
54:     return 'attack'
55:   else if row['TimeInterval'] >= 0.00011539459228515625 and row['P_CAN_ID_251'] <= 0.5 and row['TimeInterval'] <= 0.00011694431304931642 then:
56:     return 'attack'
57:   else if row['TimeInterval'] >= 0.00011050701141357422 and row['TimeInterval'] <= 0.0001124136004638672 and row['P_CAN_ID_470'] <= 0.5 then:
58:     return 'attack'
59:   else if row['P_CAN_ID_42D'] <= 0.5 and row['P_CAN_ID_484'] <= 0.5 and row['TimeInterval'] >= 0.00019860267639160156 then:
60:     return 'attack'
61:   else
62:     'normal'
63: else if row['Arbitration_ID'] == '4A9' then:
64:   if row['TimeInterval'] >= 0.00029850006103515625 then:
65:     return 'attack'
66:   else if row['TimeInterval'] <= 0.0002186298370361328 then:
67:     return 'attack'
68:   else if row['TimeInterval'] <= 0.0002149343490600586 and row['TimeInterval'] >= 0.00021398067474365237 then:
69:     return 'attack'
70:   else if row['TimeInterval'] >= 0.00021183490753173828 and row['TimeInterval'] <= 0.00021278858184814453 then:
71:     return 'attack'
72:   else if row['TimeInterval'] >= 0.0002186298370361328 and row['TimeInterval'] <= 0.00023448467254638675 then:
73:     return 'attack'
74:   else if row['P_CAN_ID_470'] <= 0.5 and row['TimeInterval'] <= 0.00021588802337646484 and row['TimeInterval'] >= 0.0002149343490600586 then:
75:     return 'attack'
76:   else if row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] <= 0.00022304058074951172 and row['TimeInterval'] >= 0.00020802021026611328 then:
77:     return 'attack'
78:   else
79:     'normal'
80: else if row['Arbitration_ID'] == '4C9' then:
81:   if row['TimeInterval'] <= 0.00021708011627197266 then:

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82:     return 'attack'
83: else if row['TimeInterval'] >= 0.00029647350311279297 then:
84:     return 'attack'
85: else if row['TimeInterval'] >= 0.00029647350311279297 and row['P_CAN_ID_386'] >= 0.5 then:
86:     return 'attack'
87: else if row['TimeInterval'] >= 0.00021708011627197266 and row['TimeInterval'] <= 0.00022017955780029294 then:
88:     return 'attack'
89: else if row['TimeInterval'] <= 0.00023472309112548828 and row['TimeInterval'] >= 0.0002315044403076172 then:
90:     return 'attack'
91: else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] <= 0.00022554397583007812 and row['TimeInterval'] >= 0.00022017955780029294 then:
92:     return 'attack'
93: else if row['TimeInterval'] <= 0.00024020671844482422 and row['TimeInterval'] >= 0.00021040439605712888 and row['P_CAN_ID_485'] >= 0.5 then:
94:     return 'attack'
95: else if row['TimeInterval'] <= 0.00021708011627197266 and row['TimeInterval'] >= 0.00021040439605712888 and row['P_CAN_ID_140'] >= 0.5 then:
96:     return 'attack'
97: else if row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00020802021026611328 and row['TimeInterval'] <= 0.00021326541900634766 then:
98:     return 'attack'
99: else
100:     'normal'
101: else if row['Arbitration_ID'] == '4CB' then:
102:     if row['D1'] >= 10.5 then:
103:         return 'attack'
104:     else if row['TimeInterval'] >= 0.0007909536361694336 and row['P_CAN_ID_485'] <= 0.5 then:
105:         return 'attack'
106:     else if row['TimeInterval'] <= 0.00024116039276123047 and row['P_CAN_ID_164'] >= 0.5 then:
107:         return 'attack'
108:     else if row['TimeInterval'] >= 0.00030350685119628906 and row['D0'] >= 128.5 then:
109:         return 'attack'
110:     else if row['TimeInterval'] >= 0.00036394596099853516 and row['TimeInterval'] <= 0.0004825592041015625 then:
111:         return 'attack'
112:     else if row['D0'] <= 2.0 and row['TimeInterval'] >= 0.00022947788238525393 and row['TimeInterval'] <= 0.0002371072769165039 then:
113:         return 'attack'
114:     else if row['D0'] <= 2.0 and row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0005388259887695312 then:
115:         return 'attack'
116:     else if row['P_CAN_ID_47F'] <= 0.5 and row['TimeInterval'] <= 0.00022947788238525393 and row['D0'] >= 128.5 then:
117:         return 'attack'
118:     else
119:         'normal'
120: else if row['Arbitration_ID'] == '4F1' then:
121:     if row['DLC'] >= 6.0 then:
122:         return 'attack'
123:     else if row['TimeInterval'] >= 0.00026297569274902344 then:
124:         return 'attack'
125:     else if row['TimeInterval'] >= 0.00020360946655273438 and row['D1'] <= 7.5 and row['P_CAN_ID_386'] >= 0.5 then:
126:         return 'attack'
127:     else if row['D1'] <= 7.5 and row['TimeInterval'] >= 0.00015103816986083984 and row['TimeInterval'] <= 0.00015366077423095703 then:
128:         return 'attack'
129:     else
130:         'normal'
131: else if row['Arbitration_ID'] == '5A6' then:
132:     if row['TimeInterval'] >= 0.00030291080474853516 then:
133:         return 'attack'
134:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.00024306774139404294 then:
135:         return 'attack'
136:     else if row['TimeInterval'] <= 0.00023257732391357422 and row['P_CAN_ID_541'] >= 0.5 then:
137:         return 'attack'
138:     else if row['TimeInterval'] >= 0.001244187355041504 and row['P_CAN_ID_367'] <= 0.5 then:
139:         return 'attack'
140:     else if row['TimeInterval'] >= 0.0007932186126708984 and row['TimeInterval'] <= 0.0011066198348999023 then:
141:         return 'attack'
142:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.0002168416976928711 and row['TimeInterval'] >= 0.0002149343490600586 then:
143:         return 'attack'
144:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.00023257732391357422 and row['TimeInterval'] >= 0.0002290010452270508 then:
145:         return 'attack'
146:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] <= 0.0002130270004272461 and row['TimeInterval'] >= 0.00021088123321533203 then:
147:         return 'attack'
148:     else if row['P_CAN_ID_53B'] <= 0.5 and row['TimeInterval'] >= 0.000217437744140625 and row['TimeInterval'] <= 0.00021898746490478518 then:
149:         return 'attack'
150:     else if row['TimeInterval'] >= 0.00034356117248535156 and row['P_CAN_ID_381'] <= 0.5 and row['TimeInterval'] <= 0.00040471553802490234 then:
151:         return 'attack'
152:     else
153:         'normal'
154: else if row['Arbitration_ID'] == '5B0' then:
155:     if row['DLC'] >= 6.0 then:
156:         return 'attack'
157:     else if row['D0'] >= 157.5 and row['TimeInterval'] <= 0.00015616416931152344 then:
158:         return 'attack'
159:     else if row['D0'] >= 157.5 and row['TimeInterval'] >= 0.00019943714141845703 then:
160:         return 'attack'
161:     else
162:         'normal'
163: else if row['Arbitration_ID'] == '5BE' then:
164:     if row['D3'] >= 3.5 then:
165:         return 'attack'
166:     else if row['D0'] >= 4.5 then:

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167:     return 'attack'
168: else if row['TimeInterval'] >= 0.0003523826599121094 and row['TimeInterval'] <= 0.00037276744842529297 then:
169:     return 'attack'
170: else if row['TimeInterval'] >= 0.0003523826599121094 and row['P_CAN_ID_58B'] >= 0.5 then:
171:     return 'attack'
172: else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_48A'] >= 0.5 then:
173:     return 'attack'
174: else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.00043511390686035156 then:
175:     return 'attack'
176: else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.0002282857894897461 then:
177:     return 'attack'
178: else
179:     'normal'
180: else if row['Arbitration_ID'] == '5CD' then:
181:     if row['TimeInterval'] >= 0.000301361083984375 then:
182:         return 'attack'
183:     else if row['TimeInterval'] <= 0.00022268295288085938 then:
184:         return 'attack'
185:     else if row['TimeInterval'] <= 0.00024056434631347656 and row['P_CAN_ID_568'] >= 0.5 then:
186:         return 'attack'
187:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_58B'] >= 0.5 then:
188:         return 'attack'
189:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_260'] >= 0.5 then:
190:         return 'attack'
191:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_329'] >= 0.5 then:
192:         return 'attack'
193:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_140'] >= 0.5 then:
194:         return 'attack'
195:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_381'] >= 0.5 then:
196:         return 'attack'
197:     else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_164'] >= 0.5 then:
198:         return 'attack'
199:     else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_386'] >= 0.5 then:
200:         return 'attack'
201:     else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_140'] >= 0.5 then:
202:         return 'attack'
203:     else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_164'] >= 0.5 then:
204:         return 'attack'
205:     else if row['TimeInterval'] >= 0.0003260374069213867 and row['P_CAN_ID_387'] >= 0.5 then:
206:         return 'attack'
207:     else if row['TimeInterval'] >= 0.000301361083984375 and row['TimeInterval'] <= 0.0007874965667724609 and row['P_CAN_ID_386'] >= 0.5 then:
208:         return 'attack'
209:     else if row['TimeInterval'] >= 0.000301361083984375 and row['TimeInterval'] <= 0.002046346664428711 and row['P_CAN_ID_386'] >= 0.5 then:
210:         return 'attack'
211:     else if row['TimeInterval'] <= 0.00021660327911376953 and row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00021278858184814453 then:
212:         return 'attack'
213:     else if row['P_CAN_ID_52A'] >= 0.5 and row['TimeInterval'] >= 0.0003260374069213867 and row['TimeInterval'] <= 0.0007874965667724609 then:
214:         return 'attack'
215:     else if row['TimeInterval'] >= 0.0002092123031616211 and row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] <= 0.00021147727966308594 then:
216:         return 'attack'
217:     else if row['P_CAN_ID_52A'] <= 0.5 and row['TimeInterval'] >= 0.00023114681243896482 and row['TimeInterval'] <= 0.00023448467254638675 then:
218:         return 'attack'
219:     else
220:         'normal'
221: else if row['Arbitration_ID'] == '07F' then:
222:     if row['TimeInterval'] >= 0.0003885030746459961 then:
223:         return 'attack'
224:     else if row['TimeInterval'] <= 0.00023615360260009766 and row['P_CAN_ID_381'] >= 0.5 then:
225:         return 'attack'
226:     else if row['TimeInterval'] <= 0.00023615360260009766 and row['P_CAN_ID_329'] >= 0.5 then:
227:         return 'attack'
228:     else if row['TimeInterval'] <= 0.00023615360260009766 and row['P_CAN_ID_541'] >= 0.5 then:
229:         return 'attack'
230:     else if row['TimeInterval'] <= 0.00023615360260009766 and row['TimeInterval'] >= 0.00021898746490478518 then:
231:         return 'attack'
232:     else if row['TimeInterval'] >= 0.0003001689910888672 and row['P_CAN_ID_381'] >= 0.5 then:
233:         return 'attack'
234:     else if row['TimeInterval'] >= 0.0003001689910888672 and row['P_CAN_ID_500'] >= 0.5 then:
235:         return 'attack'
236:     else if row['TimeInterval'] >= 0.0003470182418823242 and row['P_CAN_ID_520'] >= 0.5 then:
237:         return 'attack'
238:     else if row['TimeInterval'] >= 0.0003470182418823242 and row['TimeInterval'] <= 0.0003701448440551758 then:
239:         return 'attack'
240:     else if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0002143383026123047 then:
241:         return 'attack'
242:     else if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
243:         return 'attack'
244:     else if row['P_CAN_ID_381'] >= 0.5 and row['TimeInterval'] <= 0.00024902820587158203 then:
245:         return 'attack'
246:     else if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.00038802623748779297 then:
247:         return 'attack'
248:     else if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0003707408905029297 then:
249:         return 'attack'
250:     else if row['TimeInterval'] >= 0.00031197071075439453 and row['TimeInterval'] <= 0.0003255605697631836 then:
251:         return 'attack'

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252:   else if row['TimeInterval'] >= 0.0002143383026123047 and row['TimeInterval'] <= 0.0002187490463256836 then:
253:       return 'attack'
254:   else if row['TimeInterval'] <= 0.00038802623748779297 and row['TimeInterval'] >= 0.0003707408905029297 then:
255:       return 'attack'
256:   else if row['TimeInterval'] <= 0.00023615360260009766 and row['P_CAN_ID_520'] <= 0.5 and row['P_CAN_ID_386'] <= 0.5 then:
257:       return 'attack'
258:   else if row['TimeInterval'] >= 0.0003001689910888672 and row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0003019571304321289 then:
259:       return 'attack'
260:   else if row['TimeInterval'] >= 0.0003470182418823242 and row['P_CAN_ID_329'] <= 0.5 and row['P_CAN_ID_541'] <= 0.5 then:
261:       return 'attack'
262:   else
263:       'normal'
264:   else if row['Arbitration_ID'] == '7C4' then:
265:       if row['D2'] >= 10.5 then:
266:           return 'attack'
267:       else if row['D1'] >= 25.5 then:
268:           return 'attack'
269:       else if row['D0'] >= 48.5 then:
270:           return 'attack'
271:       else
272:           'normal'
273:   else if row['Arbitration_ID'] == '7CC' then:
274:       if row['D0'] >= 38.5 then:
275:           return 'attack'
276:       else if row['D0'] >= 32.5 and row['D6'] >= 169.5 then:
277:           return 'attack'
278:       else if row['D6'] >= 169.5 and row['D7'] <= 135.5 then:
279:           return 'attack'
280:       else if row['D6'] >= 169.5 and row['D5'] <= 134.5 then:
281:           return 'attack'
282:       else if row['D6'] >= 169.5 and row['D4'] <= 23.5 then:
283:           return 'attack'
284:       else if row['D7'] >= 135.5 and row['D4'] <= 23.5 then:
285:           return 'attack'
286:       else if row['D5'] >= 134.5 and row['D4'] <= 23.5 then:
287:           return 'attack'
288:       else if row['D3'] >= 35.5 and row['D0'] >= 32.5 and row['D5'] >= 134.5 then:
289:           return 'attack'
290:       else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['TimeInterval'] <= 0.00022947788238525393 then:
291:           return 'attack'
292:       else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['D6'] <= 169.5 then:
293:           return 'attack'
294:       else if row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['TimeInterval'] >= 0.0003546476364135742 then:
295:           return 'attack'
296:       else if row['D3'] >= 35.5 and row['TimeInterval'] <= 0.00022947788238525393 and row['D7'] >= 135.5 then:
297:           return 'attack'
298:       else if row['D3'] <= 35.5 and row['D0'] >= 32.5 and row['D7'] >= 135.5 then:
299:           return 'attack'
300:       else if row['D3'] <= 35.5 and row['D6'] <= 169.5 and row['D7'] >= 135.5 then:
301:           return 'attack'
302:       else if row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D5'] >= 134.5 then:
303:           return 'attack'
304:       else if row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D4'] >= 23.5 then:
305:           return 'attack'
306:       else
307:           'normal'
308:   else if row['Arbitration_ID'] == '7D0' then:
309:       if row['D2'] >= 10.5 then:
310:           return 'attack'
311:       else if row['D1'] >= 25.5 then:
312:           return 'attack'
313:       else if row['D7'] <= 169.0 then:
314:           return 'attack'
315:       else if row['D0'] >= 48.5 then:
316:           return 'attack'
317:       else
318:           'normal'
319:   else if row['Arbitration_ID'] == '7D4' then:
320:       if row['D6'] <= 169.5 then:
321:           return 'attack'
322:       else if row['D5'] <= 169.5 then:
323:           return 'attack'
324:       else if row['D7'] <= 169.5 then:
325:           return 'attack'
326:       else if row['P_CAN_ID_260'] >= 0.5 then:
327:           return 'attack'
328:       else if row['D3'] <= 11.5 then:
329:           return 'attack'
330:       else if row['P_CAN_ID_436'] >= 0.5 then:
331:           return 'attack'
332:       else if row['P_CAN_ID_52A'] >= 0.5 then:
333:           return 'attack'
334:       else if row['P_CAN_ID_5BE'] >= 0.5 then:
335:           return 'attack'
336:       else if row['TimeInterval'] >= 0.0002524852752685547 and row['TimeInterval'] <= 0.00044167041778564453 then:

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337:     return 'attack'
338: else if row['TimeInterval'] <= 0.0002524852752685547 and row['D4'] <= 169.5 then:
339:     return 'attack'
340: else if row['D4'] <= 169.5 and row['D3'] <= 169.5 then:
341:     return 'attack'
342: else if row['D4'] <= 169.5 and row['D0'] >= 47.5 then:
343:     return 'attack'
344: else if row['D3'] <= 169.5 and row['D0'] >= 47.5 then:
345:     return 'attack'
346: else if row['D1'] >= 23.5 and row['D0'] >= 47.5 then:
347:     return 'attack'
348: else
349:     'normal'
350: else if row['Arbitration_ID'] == '7D8' then:
351:     if row['D0'] >= 48.5 then:
352:         return 'attack'
353:     else if row['D3'] >= 41.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
354:         return 'attack'
355:     else if row['D0'] <= 32.5 and row['D7'] <= 128.5 then:
356:         return 'attack'
357:     else if row['D0'] <= 32.5 and row['D0'] >= 16.5 then:
358:         return 'attack'
359:     else if row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['TimeInterval'] >= 0.00029850006103515625 then:
360:         return 'attack'
361:     else if row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['D2'] >= 57.5 then:
362:         return 'attack'
363:     else if row['D3'] >= 41.5 and row['D6'] <= 56.5 and row['D0'] <= 32.5 then:
364:         return 'attack'
365:     else if row['D3'] >= 41.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D2'] >= 57.5 then:
366:         return 'attack'
367:     else if row['D3'] >= 41.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D7'] >= 128.5 then:
368:         return 'attack'
369:     else if row['D6'] >= 56.5 and row['D2'] <= 57.5 and row['D0'] >= 32.5 then:
370:         return 'attack'
371:     else if row['D6'] >= 56.5 and row['D0'] <= 32.5 and row['D6'] <= 128.5 then:
372:         return 'attack'
373:     else if row['D6'] >= 56.5 and row['D7'] >= 128.5 and row['D6'] <= 128.5 then:
374:         return 'attack'
375:     else if row['D6'] <= 56.5 and row['TimeInterval'] <= 0.00022709369659423828 and row['D2'] <= 57.5 then:
376:         return 'attack'
377:     else if row['D6'] <= 56.5 and row['TimeInterval'] >= 0.00029850006103515625 and row['D2'] >= 57.5 then:
378:         return 'attack'
379:     else if row['TimeInterval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D7'] >= 128.5 then:
380:         return 'attack'
381:     else if row['TimeInterval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D6'] >= 128.5 then:
382:         return 'attack'
383:     else
384:         'normal'
385: else if row['Arbitration_ID'] == '7DC' then:
386:     if row['D0'] >= 48.5 then:
387:         return 'attack'
388:     else if row['D3'] >= 18.5 and row['D2'] >= 25.5 then:
389:         return 'attack'
390:     else if row['D3'] >= 18.5 and row['TimeInterval'] <= 0.00022959709167480471 then:
391:         return 'attack'
392:     else if row['D3'] >= 18.5 and row['D5'] <= 133.5 then:
393:         return 'attack'
394:     else if row['D3'] <= 18.5 and row['D4'] <= 133.5 then:
395:         return 'attack'
396:     else if row['D2'] <= 25.5 and row['TimeInterval'] <= 0.00022959709167480471 then:
397:         return 'attack'
398:     else if row['TimeInterval'] <= 0.00022959709167480471 and row['D5'] <= 133.5 then:
399:         return 'attack'
400:     else if row['TimeInterval'] <= 0.00022959709167480471 and row['D0'] >= 3.5 then:
401:         return 'attack'
402:     else
403:         'normal'
404: else if row['Arbitration_ID'] == '42D' then:
405:     if row['TimeInterval'] >= 0.0014973878860473633 then:
406:         return 'attack'
407:     else if row['D4'] >= 2.5 and row['TimeInterval'] >= 0.0002999305725097656 then:
408:         return 'attack'
409:     else if row['D4'] >= 2.5 and row['D7'] >= 33.5 then:
410:         return 'attack'
411:     else if row['D4'] <= 2.5 and row['D5'] <= 145.5 then:
412:         return 'attack'
413:     else if row['D4'] <= 2.5 and row['D6'] >= 7.5 then:
414:         return 'attack'
415:     else if row['TimeInterval'] >= 0.0002999305725097656 and row['P_CAN_ID_387'] >= 0.5 then:
416:         return 'attack'
417:     else if row['TimeInterval'] >= 0.0003370046615600586 and row['TimeInterval'] <= 0.0004252195358276367 then:
418:         return 'attack'
419:     else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_140'] >= 0.5 then:
420:         return 'attack'
421:     else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_368'] >= 0.5 then:

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422:     return 'attack'
423: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.0002366304397583008 and row['P_CAN_ID_329'] >= 0.5 then:
424:     return 'attack'
425: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['P_CAN_ID_389'] >= 0.5 then:
426:     return 'attack'
427: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_140'] >= 0.5 then:
428:     return 'attack'
429: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_386'] >= 0.5 then:
430:     return 'attack'
431: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.0002280473709106445 and row['P_CAN_ID_387'] >= 0.5 then:
432:     return 'attack'
433: else if row['TimeInterval'] >= 0.00022494792938232422 and row['P_CAN_ID_391'] >= 0.5 and row['TimeInterval'] <= 0.00022637844085693362 then:
434:     return 'attack'
435: else if row['P_CAN_ID_389'] <= 0.5 and row['TimeInterval'] >= 0.00022709369659423828 and row['TimeInterval'] <= 0.000227505337524414 then:
436:     return 'attack'
437: else if row['P_CAN_ID_340'] <= 0.5 and row['P_CAN_ID_421'] <= 0.5 and row['TimeInterval'] >= 0.0009629726409912109 then:
438:     return 'attack'
439: else if row['TimeInterval'] >= 0.00022494792938232422 and row['TimeInterval'] <= 0.00022637844085693362 then:
440:     return 'attack'
441: else if row['D4'] >= 2.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['P_CAN_ID_394'] <= 0.5 then:
442:     return 'attack'
443: else
444:     'normal'
445: else if row['Arbitration_ID'] == 43 then:
446:     if row['D0'] >= 4.5 then:
447:         return 'attack'
448:     else if row['D1'] >= 16.5 then:
449:         return 'attack'
450:     else if row['D0'] <= 3.5 then:
451:         return 'attack'
452:     else
453:         'normal'
454: else if row['Arbitration_ID'] == 44E then:
455:     if row['TimeInterval'] <= 0.00023746490478515625 then:
456:         return 'attack'
457:     else if row['TimeInterval'] >= 0.00029790401458740234 then:
458:         return 'attack'
459:     else if row['TimeInterval'] <= 0.00023746490478515625 and row['P_CAN_ID_387'] >= 0.5 then:
460:         return 'attack'
461:     else if row['TimeInterval'] >= 0.00029790401458740234 and row['P_CAN_ID_329'] >= 0.5 then:
462:         return 'attack'
463:     else if row['TimeInterval'] >= 0.00029790401458740234 and row['P_CAN_ID_386'] >= 0.5 then:
464:         return 'attack'
465:     else if row['TimeInterval'] <= 0.00021588802337646484 and row['P_CAN_ID_386'] >= 0.5 then:
466:         return 'attack'
467:     else if row['TimeInterval'] <= 0.00021588802337646484 and row['TimeInterval'] >= 0.00020825862884521484 and row['P_CAN_ID_140'] >= 0.5 then:
468:         return 'attack'
469:     else if row['TimeInterval'] >= 0.00021135807037353518 and row['TimeInterval'] <= 0.0002218484878540039 and row['P_CAN_ID_329'] >= 0.5 then:
470:         return 'attack'
471:     else
472:         'normal'
473: else if row['Arbitration_ID'] == 48C then:
474:     if row['D2'] >= 3.5 then:
475:         return 'attack'
476:     else if row['P_CAN_ID_58B'] <= 0.5 and row['TimeInterval'] >= 0.0012749433517456055 then:
477:         return 'attack'
478:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['P_CAN_ID_386'] >= 0.5 then:
479:         return 'attack'
480:     else if row['TimeInterval'] <= 0.00024020671844482422 and row['TimeInterval'] >= 0.00021827220916748047 and row['P_CAN_ID_2B0'] >= 0.5 then:
481:         return 'attack'
482:     else if row['D1'] <= 32.5 and row['TimeInterval'] >= 0.000227505337524414 and row['TimeInterval'] <= 0.00023305416107177732 then:
483:         return 'attack'
484:     else
485:         'normal'
486: else if row['Arbitration_ID'] == 49F then:
487:     if row['D1'] <= 254.5 then:
488:         return 'attack'
489:     else if row['TimeInterval'] >= 0.0013284683227539062 then:
490:         return 'attack'
491:     else if row['TimeInterval'] <= 0.00023806095123291016 and row['P_CAN_ID_453'] >= 0.5 then:
492:         return 'attack'
493:     else if row['TimeInterval'] >= 0.00034165382385253906 and row['TimeInterval'] <= 0.0011444091796875 then:
494:         return 'attack'
495:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.00023114681243896482 then:
496:         return 'attack'
497:     else if row['TimeInterval'] >= 0.00034165382385253906 and row['TimeInterval'] <= 0.001280069351196289 then:
498:         return 'attack'
499:     else if row['TimeInterval'] <= 0.00023305416107177732 and row['TimeInterval'] >= 0.00023245811462402344 then:
500:         return 'attack'
501:     else
502:         'normal'
503: else if row['Arbitration_ID'] == 50A then:
504:     if row['D0'] >= 11.5 then:
505:         return 'attack'
506:     else if row['D0'] <= 8.5 then:

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507:     return 'attack'
508: else if row['TimeInterval'] <= 0.00023090839385986328 and row['TimeInterval'] >= 0.00022816658020019529 then:
509:     return 'attack'
510: else
511:     'normal'
512: else if row['Arbitration_ID'] == 50C then:
513:     if row['D2'] >= 3.5 then:
514:         return 'attack'
515:     else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['D0'] <= 63.5 then:
516:         return 'attack'
517:     else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['TimeInterval'] >= 0.00027501583099365234 then:
518:         return 'attack'
519:     else if row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
520:         return 'attack'
521:     else if row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['TimeInterval'] >= 0.00027501583099365234 then:
522:         return 'attack'
523:     else if row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
524:         return 'attack'
525:     else
526:         'normal'
527: else if row['Arbitration_ID'] == 50E then:
528:     if row['D4'] >= 10.5 then:
529:         return 'attack'
530:     else if row['D3'] >= 32.5 then:
531:         return 'attack'
532:     else if row['TimeInterval'] >= 0.00022423267364501953 and row['P_CAN_ID_470'] <= 0.5 and row['TimeInterval'] <= 0.00022685527801513672 then:
533:         return 'attack'
534:     else if row['P_CAN_ID_507'] <= 0.5 and row['P_CAN_ID_50C'] <= 0.5 and row['TimeInterval'] >= 0.0009480714797973633 then:
535:         return 'attack'
536:     else if row['TimeInterval'] <= 0.00022840499877929685 and row['TimeInterval'] >= 0.00022709369659423828 then:
537:         return 'attack'
538:     else if row['TimeInterval'] >= 0.0004830360412597656 and row['P_CAN_ID_507'] <= 0.5 then:
539:         return 'attack'
540:     else if row['TimeInterval'] >= 0.00022423267364501953 and row['TimeInterval'] <= 0.00022840499877929685 and row['P_CAN_ID_470'] <= 0.5 then:
541:         return 'attack'
542:     else if row['TimeInterval'] >= 0.0003540515899658203 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.0003758668899536133 then:
543:         return 'attack'
544:     else
545:         'normal'
546: else if row['Arbitration_ID'] == 52A then:
547:     if row['D4'] >= 2.5 then:
548:         return 'attack'
549:     else if row['D7'] >= 136.5 and row['TimeInterval'] >= 0.00035750865936279297 then:
550:         return 'attack'
551:     else if row['D7'] >= 136.5 and row['TimeInterval'] <= 0.0002321004867553711 then:
552:         return 'attack'
553:     else
554:         'normal'
555: else if row['Arbitration_ID'] == 53B then:
556:     if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 then:
557:         return 'attack'
558:     else if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 then:
559:         return 'attack'
560:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['TimeInterval'] <= 0.00021898746490478518 and row['TimeInterval'] >= 0.0002142190933227539 then:
561:         return 'attack'
562:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0007170438766479492 then:
563:         return 'attack'
564:     else if row['TimeInterval'] <= 0.00024020671844482422 then:
565:         return 'attack'
566:     else if row['TimeInterval'] >= 0.00030219554901123047 then:
567:         return 'attack'
568:     else
569:         'normal'
570: else if row['Arbitration_ID'] == 53E then:
571:     if row['D4'] <= 7.5 then:
572:         return 'attack'
573:     else if row['D5'] >= 208.0 then:
574:         return 'attack'
575:     else if row['D4'] >= 12.5 and row['TimeInterval'] <= 0.000240325927734375 then:
576:         return 'attack'
577:     else if row['D4'] >= 12.5 and row['TimeInterval'] >= 0.00033855438232421875 then:
578:         return 'attack'
579:     else if row['TimeInterval'] >= 0.00033855438232421875 then:
580:         return 'attack'
581:     else if row['D4'] >= 12.5 and row['D5'] <= 131.5 then:
582:         return 'attack'
583:     else if row['D4'] >= 12.5 and row['D5'] >= 131.5 and row['P_CAN_ID_4A7'] <= 0.5 then:
584:         return 'attack'
585:     else if row['TimeInterval'] >= 0.00022852420806884766 and row['D5'] <= 133.5 and row['TimeInterval'] <= 0.00023150444030761716 then:
586:         return 'attack'
587:     else
588:         'normal'
589: else if row['Arbitration_ID'] == 53F then:
590:     if row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] >= 0.0010530948638916016 then:
591:         return 'attack'

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592: else if row['P_CAN_ID_4A9'] <= 0.5 and row['TimeInterval'] >= 0.00021088123321533203 and row['TimeInterval'] <= 0.00021398067474365237 then:
593:     return 'attack'
594: else if row['P_CAN_ID_4A9'] <= 0.5 and row['TimeInterval'] >= 0.00035858154296875 and row['TimeInterval'] <= 0.00070953369140625 then:
595:     return 'attack'
596: else if row['TimeInterval'] >= 0.00021088123321533203 and row['P_CAN_ID_52A'] >= 0.5 and row['TimeInterval'] <= 0.00022304058074951172 then:
597:     return 'attack'
598: else if row['P_CAN_ID_2B0'] <= 0.5 and row['TimeInterval'] <= 0.0009695291519165039 and row['TimeInterval'] >= 0.00070953369140625 then:
599:     return 'attack'
600: else if row['TimeInterval'] <= 0.00022089481353759766 then:
601:     return 'attack'
602: else if row['TimeInterval'] >= 0.00031447410583496094 then:
603:     return 'attack'
604: else if row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022304058074951172 then:
605:     return 'attack'
606: else if row['TimeInterval'] <= 0.00023341178894042966 and row['TimeInterval'] >= 0.00023055076599121094 then:
607:     return 'attack'
608: else
609:     'normal'
610: else if row['Arbitration_ID'] == '57F' then:
611:     if row['D3'] >= 1.5 then:
612:         return 'attack'
613:     else if row['D7'] >= 2.5 then:
614:         return 'attack'
615:     else if row['TimeInterval'] >= 0.0009579658508300781 then:
616:         return 'attack'
617:     else if row['TimeInterval'] >= 0.00031244754791259766 and row['P_CAN_ID_568'] <= 0.5 then:
618:         return 'attack'
619:     else
620:         'normal'
621: else if row['Arbitration_ID'] == '58B' then:
622:     if row['D1'] >= 3.5 then:
623:         return 'attack'
624:     else if row['P_CAN_ID_48A'] <= 0.5 and row['TimeInterval'] <= 0.0002356767654418945 and row['TimeInterval'] >= 0.0002321004867553711 then:
625:         return 'attack'
626:     else
627:         'normal'
628: else if row['Arbitration_ID'] == '140' then:
629:     if row['D4'] >= 32.5 then:
630:         return 'attack'
631:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] >= 0.0009586811065673828 then:
632:         return 'attack'
633:     else if row['D3'] <= 107.5 and row['D1'] >= 128.5 then:
634:         return 'attack'
635:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] >= 0.0003088712692260742 and row['P_CAN_ID_000'] <= 0.5 then:
636:         return 'attack'
637:     else if row['TimeInterval'] >= 0.0009586811065673828 then:
638:         return 'attack'
639:     else if row['P_CAN_ID_130'] <= 0.5 and row['TimeInterval'] <= 0.00024688243865966797 then:
640:         return 'attack'
641:     else
642:         'normal'
643: else if row['Arbitration_ID'] == '220' then:
644:     if row['D4'] >= 1.5 and row['TimeInterval'] >= 0.0017951726913452148 then:
645:         return 'attack'
646:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['D6'] <= 15.5 then:
647:         return 'attack'
648:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['TimeInterval'] >= 0.0005820989608764648 then:
649:         return 'attack'
650:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['P_CAN_ID_329'] >= 0.5 then:
651:         return 'attack'
652:     else if row['D4'] >= 1.5 and row['D5'] <= 244.5 and row['P_CAN_ID_260'] >= 0.5 then:
653:         return 'attack'
654:     else if row['D4'] >= 1.5 and row['TimeInterval'] <= 0.00023996829986572266 and row['P_CAN_ID_329'] >= 0.5 then:
655:         return 'attack'
656:     else if row['D4'] >= 1.5 and row['D6'] <= 15.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
657:         return 'attack'
658:     else if row['D4'] >= 1.5 and row['D0'] >= 16.5 and row['P_CAN_ID_329'] >= 0.5 then:
659:         return 'attack'
660:     else if row['D4'] >= 1.5 and row['TimeInterval'] >= 0.0005820989608764648 and row['D0'] >= 26.5 then:
661:         return 'attack'
662:     else if row['D4'] >= 1.5 and row['D2'] >= 130.5 then:
663:         return 'attack'
664:     else if row['D4'] >= 1.5 and row['P_CAN_ID_153'] <= 0.5 then:
665:         return 'attack'
666:     else if row['D4'] >= 1.5 and row['P_CAN_ID_153'] >= 0.5 and row['TimeInterval'] >= 0.0003529787063598633 then:
667:         return 'attack'
668:     else if row['D2'] >= 130.5 and row['P_CAN_ID_153'] <= 0.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
669:         return 'attack'
670:     else if row['P_CAN_ID_153'] >= 0.5 and row['D5'] <= 26.5 and row['TimeInterval'] >= 0.0003529787063598633 then:
671:         return 'attack'
672:     else
673:         'normal'
674: else if row['Arbitration_ID'] == '260' then:
675:     if row['D3'] >= 48.5 then:
676:         return 'attack'

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677:   else if row['D3'] <= 47.5 then:
678:       return 'attack'
679:   else if row['D5'] >= 189.5 and row['D4'] >= 254.5 and row['D0'] <= 5.5 then:
680:       return 'attack'
681:   else
682:       'normal'
683:   else if row['Arbitration_ID'] == 329 then:
684:       if row['D7'] >= 16.5 then:
685:           return 'attack'
686:       else if row['D4'] >= 49.5 and row['TimeInterval'] >= 0.0005239248275756836 and row['P_CAN_ID_2B0'] >= 0.5 then:
687:           return 'attack'
688:       else if row['D1'] >= 198.5 and row['D0'] >= 132.5 and row['D0'] <= 213.5 then:
689:           return 'attack'
690:       else if row['D4'] >= 49.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
691:           return 'attack'
692:       else if row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['D5'] <= 44.5 then:
693:           return 'attack'
694:       else if row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['TimeInterval'] <= 0.00022518634796142578 then:
695:           return 'attack'
696:       else if row['D1'] >= 198.5 and row['D5'] >= 44.5 and row['TimeInterval'] <= 0.0002187490463256836 then:
697:           return 'attack'
698:       else
699:           'normal'
700:   else if row['Arbitration_ID'] == 366 then:
701:       if row['DLC'] >= 7.5 then:
702:           return 'attack'
703:       else if row['D2'] >= 31.5 and row['D5'] <= 3.5 then:
704:           return 'attack'
705:       else if row['TimeInterval'] >= 0.0003230571746826172 and row['D1'] <= 14.5 and row['D3'] >= 53.5 then:
706:           return 'attack'
707:       else if row['TimeInterval'] >= 0.0003230571746826172 and row['D3'] >= 54.5 and row['D5'] <= 1.5 then:
708:           return 'attack'
709:       else if row['TimeInterval'] >= 0.0003230571746826172 and row['P_CAN_ID_140'] >= 0.5 and row['D5'] <= 1.5 then:
710:           return 'attack'
711:       else if row['P_CAN_ID_356'] <= 0.5 and row['TimeInterval'] >= 0.0003230571746826172 then:
712:           return 'attack'
713:       else if row['D5'] <= 3.5 and row['D4'] <= 44.5 and row['TimeInterval'] >= 0.0003230571746826172 then:
714:           return 'attack'
715:       else if row['TimeInterval'] <= 0.00020825862884521484 and row['D3'] >= 53.5 and row['D5'] <= 1.5 then:
716:           return 'attack'
717:       else
718:           'normal'
719:   else if row['Arbitration_ID'] == 367 then:
720:       if row['P_CAN_ID_366'] <= 0.5 and row['D4'] >= 12.5 then:
721:           return 'attack'
722:       else if row['TimeInterval'] <= 0.00023639202117919922 and row['D3'] >= 63.5 then:
723:           return 'attack'
724:       else if row['TimeInterval'] >= 0.0003033876419067383 and row['D3'] >= 63.5 then:
725:           return 'attack'
726:       else if row['D6'] >= 217.5 and row['D6'] <= 227.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
727:           return 'attack'
728:       else if row['D6'] >= 217.5 and row['D4'] <= 3.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
729:           return 'attack'
730:       else if row['D7'] <= 2.5 and row['D6'] >= 33.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
731:           return 'attack'
732:       else if row['D6'] >= 227.5 and row['D4'] <= 3.5 and row['TimeInterval'] >= 0.0004284381866455078 then:
733:           return 'attack'
734:       else if row['P_CAN_ID_366'] <= 0.5 and row['TimeInterval'] >= 0.0004284381866455078 then:
735:           return 'attack'
736:       else if row['P_CAN_ID_366'] >= 0.5 and row['D7'] <= 7.5 and row['TimeInterval'] >= 0.0009442567825317383 then:
737:           return 'attack'
738:       else if row['P_CAN_ID_366'] <= 0.5 and row['TimeInterval'] >= 0.0003033876419067383 and row['D7'] <= 7.5 then:
739:           return 'attack'
740:       else if row['TimeInterval'] <= 0.00023639202117919922 and row['D7'] <= 7.5 and row['P_CAN_ID_340'] >= 0.5 then:
741:           return 'attack'
742:       else if row['TimeInterval'] <= 0.00023639202117919922 and row['D6'] >= 217.5 and row['D4'] <= 3.5 then:
743:           return 'attack'
744:       else if row['TimeInterval'] >= 0.0003033876419067383 and row['D7'] <= 10.5 and row['D6'] >= 217.5 then:
745:           return 'attack'
746:       else
747:           'normal'
748:   else if row['Arbitration_ID'] == 368 then:
749:       if row['P_CAN_ID_367'] <= 0.5 and row['D4'] >= 3.5 then:
750:           return 'attack'
751:       else if row['D5'] <= 118.5 and row['TimeInterval'] >= 0.0016666650772094727 then:
752:           return 'attack'
753:       else if row['D7'] >= 64.5 and row['TimeInterval'] >= 0.0016666650772094727 then:
754:           return 'attack'
755:       else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_220'] >= 0.5 and row['D1'] <= 1.5 then:
756:           return 'attack'
757:       else if row['TimeInterval'] >= 0.0003129243850708008 and row['D5'] <= 38.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
758:           return 'attack'
759:       else if row['D7'] <= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.00023901462554931638 then:
760:           return 'attack'
761:       else if row['D5'] >= 12.5 and row['TimeInterval'] >= 0.0007234811782836914 and row['D5'] <= 24.5 then:

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762:     return 'attack'
763: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] >= 0.0007234811782836914 then:
764:     return 'attack'
765: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] <= 0.0002351999282836914 and row['D1'] <= 3.5 then:
766:     return 'attack'
767: else if row['P_CAN_ID_367'] <= 0.5 and row['TimeInterval'] >= 0.0003129243850708008 and row['D1'] <= 3.5 then:
768:     return 'attack'
769: else
770:     'normal'
771: else if row['Arbitration_ID'] == 389 then:
772:     if row['TimeInterval'] >= 0.00030171871185302734 and row['D4'] >= 1.5 then:
773:         return 'attack'
774:     else if row['D4'] >= 1.5 and row['D3'] <= 47.5 then:
775:         return 'attack'
776:     else if row['D4'] >= 1.5 and row['P_CAN_ID_140'] >= 0.5 then:
777:         return 'attack'
778:     else if row['D4'] >= 1.5 and row['P_CAN_ID_260'] >= 0.5 then:
779:         return 'attack'
780:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and row['P_CAN_ID_329'] >= 0.5 then:
781:         return 'attack'
782:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and row['D6'] <= 29.5 then:
783:         return 'attack'
784:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['D3'] <= 47.5 and row['P_CAN_ID_340'] >= 0.5 then:
785:         return 'attack'
786:     else if row['P_CAN_ID_421'] <= 0.5 and row['D4'] >= 1.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
787:         return 'attack'
788:     else if row['D3'] <= 47.5 and row['D6'] <= 132.5 and row['TimeInterval'] >= 0.0010281801223754883 then:
789:         return 'attack'
790:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.00023043155670166016 and row['P_CAN_ID_368'] >= 0.5 then:
791:         return 'attack'
792:     else if row['TimeInterval'] >= 0.0010281801223754883 then:
793:         return 'attack'
794:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 then:
795:         return 'attack'
796:     else if row['TimeInterval'] <= 0.0002321004867553711 and row['P_CAN_ID_368'] >= 0.5 then:
797:         return 'attack'
798:     else if row['TimeInterval'] <= 0.00023996829986572266 and row['D3'] <= 47.5 and row['P_CAN_ID_329'] >= 0.5 then:
799:         return 'attack'
800:     else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_421'] <= 0.5 and row['P_CAN_ID_000'] <= 0.5 then:
801:         return 'attack'
802:     else if row['P_CAN_ID_421'] <= 0.5 and row['TimeInterval'] >= 0.00022852420806884766 and row['TimeInterval'] <= 0.0002321004867553711 then:
803:         return 'attack'
804:     else
805:         'normal'
806: else if row['Arbitration_ID'] == 394 then:
807:     if row['D7'] <= 247.5 and row['D0'] >= 1.5 then:
808:         return 'attack'
809:     else if row['D7'] <= 247.5 and row['D5'] >= 84.5 and row['TimeInterval'] <= 0.00023901462554931638 then:
810:         return 'attack'
811:     else if row['D7'] <= 247.5 and row['TimeInterval'] >= 0.00036585330963134766 and row['P_CAN_ID_387'] >= 0.5 then:
812:         return 'attack'
813:     else if row['D6'] >= 62.5 and row['D5'] >= 84.5 and row['TimeInterval'] <= 0.00023615360260009766 then:
814:         return 'attack'
815:     else
816:         'normal'
817: else if row['Arbitration_ID'] == 410 then:
818:     if row['D4'] >= 1.5 then:
819:         return 'attack'
820:     else if row['P_CAN_ID_436'] <= 0.5 and row['P_CAN_ID_340'] <= 0.5 and row['TimeInterval'] >= 0.0004889965057373047 then:
821:         return 'attack'
822:     else if row['TimeInterval'] >= 0.0003629922866821289 then:
823:         return 'attack'
824:     else if row['TimeInterval'] >= 0.0002290010452270508 and row['TimeInterval'] <= 0.0002301931381225586 then:
825:         return 'attack'
826:     else if row['P_CAN_ID_436'] <= 0.5 and row['TimeInterval'] <= 0.0002321004867553711 and row['TimeInterval'] >= 0.0002301931381225586 then:
827:         return 'attack'
828:     else if row['P_CAN_ID_436'] <= 0.5 and row['TimeInterval'] >= 0.00022709369659423828 and row['TimeInterval'] <= 0.0002290010452270508 then:
829:         return 'attack'
830:     else
831:         'normal'
832: else if row['Arbitration_ID'] == 412 then:
833:     if row['D3'] >= 12.5 then:
834:         return 'attack'
835:     else if row['D3'] <= 11.5 then:
836:         return 'attack'
837:     else if row['TimeInterval'] >= 0.0003401041030883789 and row['P_CAN_ID_260'] <= 0.5 then:
838:         return 'attack'
839:     else if row['TimeInterval'] <= 0.00023043155670166016 and row['TimeInterval'] >= 0.00022780895233154294 then:
840:         return 'attack'
841:     else if row['TimeInterval'] <= 0.00022780895233154294 and row['TimeInterval'] >= 0.00022614002227783203 then:
842:         return 'attack'
843:     else
844:         'normal'
845: else if row['Arbitration_ID'] == 420 then:
846:     if row['TimeInterval'] >= 0.00030171871185302734 and row['D4'] <= 251.5 then:

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847:     return 'attack'
848: else if row['TimeInterval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 then:
849:     return 'attack'
850: else if row['D4'] <= 251.5 and row['P_CAN_ID_368'] >= 0.5 then:
851:     return 'attack'
852: else if row['D0'] >= 208.5 and row['TimeInterval'] >= 0.0006350278854370117 then:
853:     return 'attack'
854: else if row['D0'] <= 112.5 and row['D0'] >= 80.5 and row['TimeInterval'] >= 0.0006350278854370117 then:
855:     return 'attack'
856: else if row['D4'] <= 251.5 and row['TimeInterval'] <= 0.00022089481353759766 and row['P_CAN_ID_164'] >= 0.5 then:
857:     return 'attack'
858: else if row['TimeInterval'] >= 0.0006350278854370117 then:
859:     return 'attack'
860: else if row['D4'] <= 251.5 and row['TimeInterval'] <= 0.00022089481353759766 then:
861:     return 'attack'
862: else if row['P_CAN_ID_38D'] <= 0.5 and row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022304058074951172 then:
863:     return 'attack'
864: else if row['TimeInterval'] <= 0.00022518634796142578 and row['TimeInterval'] >= 0.00021350383758544922 and row['P_CAN_ID_368'] >= 0.5 then:
865:     return 'attack'
866: else
867:     'normal'
868: else if row['Arbitration_ID'] == 421 then:
869:     if row['TimeInterval'] >= 0.00029850006103515625 and row['D0'] <= 253.5 then:
870:         return 'attack'
871:     else if row['TimeInterval'] >= 0.00029850006103515625 and row['P_CAN_ID_386'] >= 0.5 then:
872:         return 'attack'
873:     else if row['D0'] <= 253.5 and row['P_CAN_ID_329'] >= 0.5 then:
874:         return 'attack'
875:     else if row['D0'] <= 253.5 and row['P_CAN_ID_368'] >= 0.5 then:
876:         return 'attack'
877:     else if row['D7'] <= 118.5 and row['D0'] <= 253.5 and row['D7'] >= 91.5 then:
878:         return 'attack'
879:     else if row['D0'] <= 253.5 and row['P_CAN_ID_260'] >= 0.5 and row['D7'] >= 14.5 then:
880:         return 'attack'
881:     else if row['D0'] <= 253.5 then:
882:         return 'attack'
883:     else if row['TimeInterval'] >= 0.0006260871887207031 then:
884:         return 'attack'
885:     else if row['TimeInterval'] <= 0.0002275705337524414 and row['P_CAN_ID_368'] >= 0.5 then:
886:         return 'attack'
887:     else if row['P_CAN_ID_420'] <= 0.5 and row['TimeInterval'] >= 0.00022542476654052732 and row['TimeInterval'] <= 0.0002275705337524414 then:
888:         return 'attack'
889:     else
890:         'normal'
891: else if row['Arbitration_ID'] == 436 then:
892:     if row['DLC'] >= 6.0 then:
893:         return 'attack'
894:     else if row['TimeInterval'] >= 0.000746607780456543 then:
895:         return 'attack'
896:     else if row['TimeInterval'] <= 0.0001556873321533203 and row['TimeInterval'] >= 0.0001538991928100586 then:
897:         return 'attack'
898:     else if row['TimeInterval'] <= 0.000746607780456543 and row['TimeInterval'] >= 0.0003085136413574219 then:
899:         return 'attack'
900:     else
901:         'normal'
902: else if row['Arbitration_ID'] == 453 then:
903:     if row['DLC'] >= 6.5 then:
904:         return 'attack'
905:     else if row['TimeInterval'] >= 0.0002671480178833008 and row['P_CAN_ID_2B0'] >= 0.5 then:
906:         return 'attack'
907:     else if row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['TimeInterval'] >= 0.0002671480178833008 then:
908:         return 'attack'
909:     else if row['D2'] >= 143.5 and row['TimeInterval'] <= 0.00016760826110839844 and row['P_CAN_ID_2B0'] >= 0.5 then:
910:         return 'attack'
911:     else if row['TimeInterval'] <= 0.00017511844635009766 and row['D2'] >= 143.5 and row['P_CAN_ID_140'] >= 0.5 then:
912:         return 'attack'
913:     else if row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['TimeInterval'] <= 0.00016760826110839844 then:
914:         return 'attack'
915:     else
916:         'normal'
917: else if row['Arbitration_ID'] == 470 then:
918:     if row['D3'] >= 4.5 and row['TimeInterval'] >= 0.0011584758758544922 then:
919:         return 'attack'
920:     else if row['TimeInterval'] >= 0.000607013702392578 and row['P_CAN_ID_140'] >= 0.5 then:
921:         return 'attack'
922:     else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_260'] >= 0.5 then:
923:         return 'attack'
924:     else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
925:         return 'attack'
926:     else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and row['P_CAN_ID_140'] >= 0.5 then:
927:         return 'attack'
928:     else if row['TimeInterval'] >= 0.000301361083984375 and row['D2'] >= 4.5 and row['D1'] <= 64.5 then:
929:         return 'attack'
930:     else if row['TimeInterval'] >= 0.000301361083984375 and row['D7'] <= 104.5 and row['D5'] >= 80.5 then:
931:         return 'attack'

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932:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D5'] >= 80.5 and row['D3'] >= 4.5 then:
933:       return 'attack'
934:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D7'] <= 80.5 and row['D3'] >= 4.5 then:
935:       return 'attack'
936:   else if row['TimeInterval'] >= 0.000301361083984375 and row['D3'] >= 4.5 and row['D7'] >= 141.5 then:
937:       return 'attack'
938:   else if row['P_CAN_ID_453'] <= 0.5 and row['D2'] >= 4.5 and row['TimeInterval'] >= 0.0011584758758544922 then:
939:       return 'attack'
940:   else if row['D2'] >= 4.5 and row['D1'] <= 64.5 and row['TimeInterval'] <= 0.00022375583648681638 then:
941:       return 'attack'
942:   else if row['D5'] >= 80.5 and row['TimeInterval'] <= 0.00022375583648681638 and row['D7'] <= 65.5 then:
943:       return 'attack'
944:   else if row['TimeInterval'] <= 0.00022375583648681638 and row['D7'] <= 80.5 and row['D3'] >= 4.5 then:
945:       return 'attack'
946:   else if row['TimeInterval'] >= 0.0011584758758544922 then:
947:       return 'attack'
948:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 then:
949:       return 'attack'
950:   else if row['TimeInterval'] >= 0.000301361083984375 and row['P_CAN_ID_453'] <= 0.5 then:
951:       return 'attack'
952:   else if row['TimeInterval'] <= 0.00023138523101806638 and row['TimeInterval'] >= 0.00021898746490478518 and row['P_CAN_ID_140'] >= 0.5 then:
953:       return 'attack'
954:   else if row['P_CAN_ID_368'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022375583648681638 then:
955:       return 'attack'
956:   else
957:       'normal'
958:   else if row['Arbitration_ID'] == 479 then:
959:       if row['D0'] >= 82.5 then:
960:           return 'attack'
961:       else if row['D0'] <= 73.5 then:
962:           return 'attack'
963:       else if row['D0'] <= 75.5 and row['TimeInterval'] >= 0.0003428459167480469 then:
964:           return 'attack'
965:       else if row['D0'] <= 75.5 and row['P_CAN_ID_391'] <= 0.5 and row['TimeInterval'] <= 0.00022923946380615237 then:
966:           return 'attack'
967:       else if row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] >= 0.0003428459167480469 and row['D0'] >= 76.5 then:
968:           return 'attack'
969:       else if row['TimeInterval'] <= 0.00023627281188964844 and row['D0'] <= 75.5 and row['TimeInterval'] >= 0.0002199411392211914 then:
970:           return 'attack'
971:       else
972:           'normal'
973:   else if row['Arbitration_ID'] == 483 then:
974:       if row['D0'] >= 23.5 then:
975:           return 'attack'
976:       else if row['D0'] <= 18.5 then:
977:           return 'attack'
978:       else if row['TimeInterval'] >= 0.0011943578720092773 then:
979:           return 'attack'
980:       else if row['TimeInterval'] >= 0.00023114681243896482 and row['TimeInterval'] <= 0.00023329257965087888 then:
981:           return 'attack'
982:       else
983:           'normal'
984:   else if row['Arbitration_ID'] == 484 then:
985:       if row['D4'] >= 3.5 then:
986:           return 'attack'
987:       else if row['TimeInterval'] >= 0.00034737586975097656 then:
988:           return 'attack'
989:       else if row['TimeInterval'] >= 0.0002290010452270508 and row['TimeInterval'] <= 0.00022971630096435547 then:
990:           return 'attack'
991:       else if row['TimeInterval'] <= 0.00023353099822998047 and row['D0'] >= 47.5 and row['TimeInterval'] >= 0.00023245811462402344 then:
992:           return 'attack'
993:       else
994:           'normal'
995:   else if row['Arbitration_ID'] == 485 then:
996:       if row['DLC'] >= 6.0 then:
997:           return 'attack'
998:       else if row['P_CAN_ID_387'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] >= 0.001543879508972168 then:
999:           return 'attack'
1000:      else if row['D0'] <= 2.5 and row['TimeInterval'] >= 0.0002605915069580078 then:
1001:          return 'attack'
1002:      else if row['TimeInterval'] >= 0.0001494884490966797 and row['TimeInterval'] <= 0.00015294551849365234 then:
1003:          return 'attack'
1004:      else if row['D0'] <= 2.5 and row['TimeInterval'] <= 0.00015795230865478516 and row['P_CAN_ID_453'] >= 0.5 then:
1005:          return 'attack'
1006:      else if row['TimeInterval'] <= 0.00015342235565185547 and row['P_CAN_ID_470'] >= 0.5 and row['TimeInterval'] >= 0.00015294551849365234 then:
1007:          return 'attack'
1008:      else
1009:          'normal'
1010:   else if row['Arbitration_ID'] == 490 then:
1011:       if row['D0'] >= 1.5 then:
1012:           return 'attack'
1013:       else if row['D2'] >= 8.5 and row['TimeInterval'] <= 0.0002294778823852539 then:
1014:           return 'attack'
1015:       else if row['TimeInterval'] <= 0.0002294778823852539 and row['P_CAN_ID_340'] >= 0.5 then:
1016:           return 'attack'

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1017:     else if row['D7'] >= 146.5 and row['TimeInterval'] <= 0.0002294778823852539 and row['P_CAN_ID_4F1'] >= 0.5 then:
1018:         return 'attack'
1019:     else if row['D5'] >= 112.5 and row['TimeInterval'] >= 0.0012420415878295898 and row['P_CAN_ID_386'] >= 0.5 then:
1020:         return 'attack'
1021:     else if row['TimeInterval'] <= 0.0002294778823852539 and row['TimeInterval'] >= 0.00022494792938232422 and row['P_CAN_ID_389'] >= 0.5 then:
1022:         return 'attack'
1023:     else
1024:         'normal'
1025: else if row['Arbitration_ID'] == '492' then:
1026:     if row['D1'] <= 253.5 then:
1027:         return 'attack'
1028:     else if row['TimeInterval'] <= 0.00024020671844482422 and row['P_CAN_ID_220'] >= 0.5 then:
1029:         return 'attack'
1030:     else if row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] <= 0.00023365020751953125 then:
1031:         return 'attack'
1032:     else if row['TimeInterval'] <= 0.00023365020751953125 and row['TimeInterval'] >= 0.00022923946380615237 then:
1033:         return 'attack'
1034:     else if row['TimeInterval'] >= 0.0006629228591918945 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.000764012336730957 then:
1035:         return 'attack'
1036:     else
1037:         'normal'
1038: else if row['Arbitration_ID'] == '495' then:
1039:     if row['D5'] >= 2.5 then:
1040:         return 'attack'
1041:     else if row['TimeInterval'] <= 0.0002204179763793945 and row['P_CAN_ID_386'] <= 0.5 and row['TimeInterval'] >= 0.0002199411392211914 then:
1042:         return 'attack'
1043:     else if row['TimeInterval'] >= 0.0003424882887939453 then:
1044:         return 'attack'
1045:     else if row['TimeInterval'] >= 0.00021922588348388672 and row['TimeInterval'] <= 0.0002199411392211914 then:
1046:         return 'attack'
1047:     else if row['TimeInterval'] <= 0.00022339820861816404 and row['P_CAN_ID_389'] >= 0.5 then:
1048:         return 'attack'
1049:     else if row['TimeInterval'] >= 0.0002204179763793945 and row['P_CAN_ID_329'] <= 0.5 and row['TimeInterval'] <= 0.00022089481353759766 then:
1050:         return 'attack'
1051:     else
1052:         'normal'
1053: else if row['Arbitration_ID'] == '500' then:
1054:     if row['D0'] >= 1.5 then:
1055:         return 'attack'
1056:     else if row['TimeInterval'] >= 0.0010155439376831055 then:
1057:         return 'attack'
1058:     else if row['TimeInterval'] >= 0.0003679990768432617 and row['P_CAN_ID_140'] >= 0.5 then:
1059:         return 'attack'
1060:     else if row['TimeInterval'] >= 0.000545501708984375 and row['P_CAN_ID_386'] >= 0.5 then:
1061:         return 'attack'
1062:     else if row['TimeInterval'] >= 0.00023376941680908203 and row['TimeInterval'] <= 0.00023651123046875003 then:
1063:         return 'attack'
1064:     else if row['TimeInterval'] >= 0.0006865262985229492 and row['P_CAN_ID_2B0'] >= 0.5 then:
1065:         return 'attack'
1066:     else if row['P_CAN_ID_495'] <= 0.5 and row['D4'] >= 8.5 and row['TimeInterval'] >= 0.0007345676422119141 then:
1067:         return 'attack'
1068:     else if row['D4'] >= 8.5 and row['TimeInterval'] >= 0.00040400028228759766 and row['P_CAN_ID_2B0'] >= 0.5 then:
1069:         return 'attack'
1070:     else
1071:         'normal'
1072: else if row['Arbitration_ID'] == '507' then:
1073:     if row['DLC'] >= 6.0 then:
1074:         return 'attack'
1075:     else if row['TimeInterval'] >= 0.0007494688034057617 then:
1076:         return 'attack'
1077:     else if row['TimeInterval'] <= 0.00016510486602783203 and row['P_CAN_ID_4F1'] >= 0.5 then:
1078:         return 'attack'
1079:     else if row['TimeInterval'] >= 0.00015556812286376953 and row['TimeInterval'] <= 0.0001569986343383789 then:
1080:         return 'attack'
1081:     else if row['D0'] <= 7.5 and row['TimeInterval'] >= 0.00026547908782958984 and row['TimeInterval'] <= 0.0007494688034057617 then:
1082:         return 'attack'
1083:     else
1084:         'normal'
1085: else if row['Arbitration_ID'] == '520' then:
1086:     if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_164'] >= 0.5 then:
1087:         return 'attack'
1088:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_386'] >= 0.5 then:
1089:         return 'attack'
1090:     else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_329'] >= 0.5 then:
1091:         return 'attack'
1092:     else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_389'] >= 0.5 then:
1093:         return 'attack'
1094:     else if row['TimeInterval'] >= 0.00030553340911865234 then:
1095:         return 'attack'
1096:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_329'] >= 0.5 then:
1097:         return 'attack'
1098:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 then:
1099:         return 'attack'
1100:     else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_389'] >= 0.5 then:
1101:         return 'attack'

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1102:   else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_140'] >= 0.5 then:
1103:       return 'attack'
1104:   else if row['TimeInterval'] <= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 then:
1105:       return 'attack'
1106:   else if row['TimeInterval'] <= 0.00023949146270751953 and row['TimeInterval'] >= 0.00022649765014648438 and row['P_CAN_ID_260'] >= 0.5 then:
1107:       return 'attack'
1108:   else if row['TimeInterval'] >= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 and row['TimeInterval'] <= 0.0002213716506958008 then:
1109:       return 'attack'
1110:   else if row['TimeInterval'] >= 0.00022649765014648438 and row['P_CAN_ID_50C'] >= 0.5 and row['TimeInterval'] <= 0.00023305416107177732 then:
1111:       return 'attack'
1112:   else
1113:       'normal'
1114:   else if row['Arbitration_ID'] == '541' then:
1115:       if row['D1'] >= 4.5 then:
1116:           return 'attack'
1117:       else if row['TimeInterval'] >= 0.00026857852935791016 and row['P_CAN_ID_2B0'] >= 0.5 then:
1118:           return 'attack'
1119:       else if row['TimeInterval'] <= 0.0002280473709106445 and row['TimeInterval'] >= 0.00022399425506591797 then:
1120:           return 'attack'
1121:       else if row['D1'] >= 3.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0009649991989135742 then:
1122:           return 'attack'
1123:       else if row['D1'] >= 3.5 and row['TimeInterval'] <= 0.0007129907608032227 and row['TimeInterval'] >= 0.0004055500030517578 then:
1124:           return 'attack'
1125:       else
1126:           'normal'
1127:   else if row['Arbitration_ID'] == '544' then:
1128:       if row['D0'] <= 254.5 then:
1129:           return 'attack'
1130:       else if row['TimeInterval'] >= 0.0002244710922241211 and row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022685527801513672 then:
1131:           return 'attack'
1132:       else
1133:           'normal'
1134:   else if row['Arbitration_ID'] == '553' then:
1135:       if row['D2'] <= 24.5 then:
1136:           return 'attack'
1137:       else if row['D1'] >= 1.5 then:
1138:           return 'attack'
1139:       else if row['P_CAN_ID_544'] <= 0.5 and row['TimeInterval'] >= 0.0008126497268676758 then:
1140:           return 'attack'
1141:       else if row['TimeInterval'] >= 0.00022089481353759766 and row['TimeInterval'] <= 0.00022459030151367188 then:
1142:           return 'attack'
1143:       else if row['TimeInterval'] >= 0.00035750865936279297 and row['TimeInterval'] <= 0.0003980398178100586 then:
1144:           return 'attack'
1145:       else
1146:           'normal'
1147:   else if row['Arbitration_ID'] == '559' then:
1148:       if row['TimeInterval'] <= 0.000217437744140625 and row['P_CAN_ID_52A'] >= 0.5 then:
1149:           return 'attack'
1150:       else if row['TimeInterval'] <= 0.000217437744140625 and row['P_CAN_ID_329'] >= 0.5 and row['TimeInterval'] >= 0.00020992755889892578 then:
1151:           return 'attack'
1152:       else if row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] >= 0.00020992755889892578 and row['TimeInterval'] <= 0.0002111196517944336 then:
1153:           return 'attack'
1154:       else if row['TimeInterval'] >= 0.00029349327087402344 then:
1155:           return 'attack'
1156:       else if row['TimeInterval'] <= 0.000217437744140625 then:
1157:           return 'attack'
1158:       else if row['TimeInterval'] >= 0.000217437744140625 and row['TimeInterval'] <= 0.00021922588348388672 then:
1159:           return 'attack'
1160:       else if row['P_CAN_ID_453'] <= 0.5 and row['TimeInterval'] <= 0.00022494792938232422 and row['TimeInterval'] >= 0.00021922588348388672 then:
1161:           return 'attack'
1162:       else
1163:           'normal'
1164:   else if row['Arbitration_ID'] == '563' then:
1165:       if row['D6'] >= 1.5 then:
1166:           return 'attack'
1167:       else
1168:           'normal'
1169:   else if row['Arbitration_ID'] == '568' then:
1170:       if row['D4'] >= 128.5 then:
1171:           return 'attack'
1172:       else if row['D4'] <= 127.5 then:
1173:           return 'attack'
1174:       else if row['TimeInterval'] >= 0.0003466606140136719 and row['D3'] >= 142.5 then:
1175:           return 'attack'
1176:       else if row['TimeInterval'] >= 0.00022995471954345703 and row['TimeInterval'] <= 0.00023353099822998044 then:
1177:           return 'attack'
1178:       else if row['TimeInterval'] >= 0.0009143352508544923 and row['D3'] <= 138.5 then:
1179:           return 'attack'
1180:       else if row['D3'] >= 139.5 and row['TimeInterval'] <= 0.00022995471954345703 and row['TimeInterval'] >= 0.00022649765014648438 then:
1181:           return 'attack'
1182:       else if row['D3'] >= 139.5 and row['D5'] <= 64.5 and row['TimeInterval'] >= 0.002015829086303711 then:
1183:           return 'attack'
1184:       else if row['D3'] >= 141.5 and row['D5'] <= 64.5 and row['TimeInterval'] >= 0.0009143352508544923 then:
1185:           return 'attack'
1186:       else

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1187:   'normal'
1188: else if row['Arbitration_ID'] == '593' then:
1189:   if row['DLC'] >= 7.0 then:
1190:     return 'attack'
1191:   else if row['TimeInterval'] <= 0.00019514560699462888 and row['TimeInterval'] >= 0.00019133090972900393 then:
1192:     return 'attack'
1193:   else
1194:     'normal'
1195: else if row['Arbitration_ID'] == '572' then:
1196:   if row['P_CAN_ID_520'] <= 0.5 and row['TimeInterval'] <= 0.0003933906555175781 and row['TimeInterval'] >= 0.0003484487533569336 then:
1197:     return 'attack'
1198:   else if row['TimeInterval'] >= 0.00021183490753173828 and row['TimeInterval'] <= 0.00022542476654052734 and row['P_CAN_ID_329'] >= 0.5 then:
1199:     return 'attack'
1200:   else if row['TimeInterval'] >= 0.00020802021026611328 and row['TimeInterval'] <= 0.00022089481353759766 and row['P_CAN_ID_541'] >= 0.5 then:
1201:     return 'attack'
1202:   else if row['TimeInterval'] <= 0.00024056434631347656 then:
1203:     return 'attack'
1204:   else if row['TimeInterval'] >= 0.0003933906555175781 then:
1205:     return 'attack'
1206:   else
1207:     'normal'
1208: else if row['Arbitration_ID'] == '47F' then:
1209:   if row['D2'] <= 254.5 then:
1210:     return 'attack'
1211:   else if row['TimeInterval'] <= 0.0002351999282836914 and row['P_CAN_ID_2B0'] >= 0.5 then:
1212:     return 'attack'
1213:   else
1214:     'normal'
1215: else if row['Arbitration_ID'] == '48A' then:
1216:   if row['D5'] >= 2.5 and row['P_CAN_ID_470'] >= 0.5 then:
1217:     return 'attack'
1218:   else if row['D5'] >= 2.5 and row['P_CAN_ID_340'] >= 0.5 then:
1219:     return 'attack'
1220:   else if row['D5'] >= 2.5 and row['TimeInterval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 then:
1221:     return 'attack'
1222:   else if row['D5'] >= 2.5 and row['TimeInterval'] >= 0.00046002864837646484 and row['D6'] >= 32.5 then:
1223:     return 'attack'
1224:   else if row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['D6'] >= 32.5 then:
1225:     return 'attack'
1226:   else if row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['TimeInterval'] <= 0.00022554397583007812 then:
1227:     return 'attack'
1228:   else if row['D5'] >= 2.5 and row['D2'] >= 128.5 and row['D6'] >= 32.5 then:
1229:     return 'attack'
1230:   else if row['D5'] >= 2.5 and row['D6'] >= 32.5 and row['TimeInterval'] >= 0.0003553628921508789 then:
1231:     return 'attack'
1232:   else if row['D5'] >= 2.5 and row['P_CAN_ID_140'] <= 0.5 and row['TimeInterval'] <= 0.0002199411392211914 then:
1233:     return 'attack'
1234:   else if row['TimeInterval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 and row['D6'] <= 95.5 then:
1235:     return 'attack'
1236:   else
1237:     'normal'
1238: else if row['Arbitration_ID'] == '153' then:
1239:   if row['D3'] <= 254.5 and row['D1'] <= 129.5 then:
1240:     return 'attack'
1241:   else if row['D3'] <= 254.5 and row['P_CAN_ID_260'] >= 0.5 then:
1242:     return 'attack'
1243:   else if row['D3'] <= 254.5 and row['P_CAN_ID_340'] >= 0.5 then:
1244:     return 'attack'
1245:   else if row['D6'] >= 145.5 and row['D7'] >= 206.5 then:
1246:     return 'attack'
1247:   else if row['D6'] >= 145.5 and row['D7'] <= 45.5 then:
1248:     return 'attack'
1249:   else if row['D7'] <= 97.5 and row['D6'] >= 207.5 then:
1250:     return 'attack'
1251:   else if row['D3'] <= 254.5 and row['D7'] <= 126.5 and row['D6'] >= 175.5 then:
1252:     return 'attack'
1253:   else if row['D3'] <= 254.5 and row['D7'] >= 206.5 and row['D6'] >= 64.5 then:
1254:     return 'attack'
1255:   else if row['D3'] <= 254.5 and row['D7'] <= 206.5 and row['D6'] <= 17.5 then:
1256:     return 'attack'
1257:   else if row['D3'] <= 254.5 and row['D7'] <= 97.5 and row['D6'] >= 130.5 then:
1258:     return 'attack'
1259:   else if row['D7'] >= 126.5 and row['D6'] <= 145.5 and row['D6'] >= 97.5 then:
1260:     return 'attack'
1261:   else if row['D7'] <= 126.5 and row['D7'] >= 45.5 and row['D6'] <= 64.5 then:
1262:     return 'attack'
1263:   else if row['D3'] <= 254.5 and row['D7'] >= 126.5 and row['D6'] <= 145.5 then:
1264:     return 'attack'
1265:   else if row['D3'] <= 254.5 and row['D7'] <= 177.5 and row['D6'] >= 207.5 then:
1266:     return 'attack'
1267:   else if row['D7'] <= 126.5 and row['P_CAN_ID_47F'] <= 0.5 and row['D6'] <= 48.5 then:
1268:     return 'attack'
1269:   else
1270:     'normal'
1271: else if row['Arbitration_ID'] == '164' then:

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1272:   if row['DLC'] >= 6.0 then:
1273:       return 'attack'
1274:   else
1275:       'normal'
1276: else if row['Arbitration_ID'] == 251 then:
1277:   if row['D4'] >= 0.5 then:
1278:       return 'attack'
1279:   else
1280:       'normal'
1281: else if row['Arbitration_ID'] == 340 then:
1282:   if row['TimeInterval'] <= 0.00023305416107177732 and row['D4'] <= 133.5 and row['D6'] >= 181.5 then:
1283:       return 'attack'
1284:   else if row['TimeInterval'] <= 0.00023305416107177732 and row['D6'] <= 92.5 and row['D4'] >= 214.5 then:
1285:       return 'attack'
1286:   else if row['TimeInterval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 and row['P_CAN_ID_220'] >= 0.5 then:
1287:       return 'attack'
1288:   else if row['D4'] >= 133.5 and row['D6'] <= 92.5 and row['D1'] >= 3.5 then:
1289:       return 'attack'
1290:   else if row['D4'] <= 133.5 and row['D0'] <= 251.5 and row['D6'] >= 181.5 then:
1291:       return 'attack'
1292:   else if row['D6'] >= 181.5 and row['D1'] >= 3.5 and row['D4'] <= 165.5 then:
1293:       return 'attack'
1294:   else if row['D6'] <= 181.5 and row['D1'] >= 3.5 and row['D4'] >= 214.5 then:
1295:       return 'attack'
1296:   else if row['TimeInterval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 then:
1297:       return 'attack'
1298:   else
1299:       'normal'
1300: else if row['Arbitration_ID'] == 381 then:
1301:   if row['D2'] >= 64.5 and row['D7'] >= 5.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1302:       return 'attack'
1303:   else if row['TimeInterval'] <= 0.00023496150970458984 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1304:       return 'attack'
1305:   else if row['D5'] >= 140.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1306:       return 'attack'
1307:   else if row['D2'] >= 68.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1308:       return 'attack'
1309:   else if row['D2'] >= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] >= 0.0007737874984741211 then:
1310:       return 'attack'
1311:   else if row['TimeInterval'] <= 0.00023496150970458984 and row['D2'] <= 60.5 and row['D5'] >= 214.5 then:
1312:       return 'attack'
1313:   else if row['D5'] >= 140.5 and row['D2'] <= 60.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1314:       return 'attack'
1315:   else if row['D1'] >= 143.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 then:
1316:       return 'attack'
1317:   else if row['D7'] >= 5.5 and row['D2'] <= 60.5 and row['TimeInterval'] >= 0.00035369396209716797 then:
1318:       return 'attack'
1319:   else if row['D2'] >= 66.5 and row['D1'] >= 207.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1320:       return 'attack'
1321:   else if row['P_CAN_ID_2B0'] <= 0.5 and row['D2'] >= 65.5 and row['TimeInterval'] <= 0.00022709369659423828 then:
1322:       return 'attack'
1323:   else
1324:       'normal'
1325: else if row['Arbitration_ID'] == 386 then:
1326:   if row['D0'] >= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['P_CAN_ID_260'] >= 0.5 then:
1327:       return 'attack'
1328:   else if row['P_CAN_ID_260'] >= 0.5 and row['TimeInterval'] <= 0.00022995471954345703 then:
1329:       return 'attack'
1330:   else if row['D0'] <= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] >= 130.5 then:
1331:       return 'attack'
1332:   else if row['D0'] <= 50.5 and row['TimeInterval'] <= 0.00022518634796142578 and row['D2'] >= 121.5 then:
1333:       return 'attack'
1334:   else if row['D0'] <= 50.5 and row['TimeInterval'] >= 0.0006536245346069336 and row['P_CAN_ID_2B0'] >= 0.5 then:
1335:       return 'attack'
1336:   else if row['D5'] >= 65.5 and row['TimeInterval'] >= 0.0002988576889038086 and row['P_CAN_ID_260'] >= 0.5 then:
1337:       return 'attack'
1338:   else if row['TimeInterval'] <= 0.00022518634796142578 and row['D7'] <= 127.5 and row['P_CAN_ID_2B0'] >= 0.5 then:
1339:       return 'attack'
1340:   else if row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] >= 130.5 and row['D2'] <= 121.5 then:
1341:       return 'attack'
1342:   else if row['TimeInterval'] <= 0.00022518634796142578 and row['D6'] <= 130.5 and row['D2'] >= 121.5 then:
1343:       return 'attack'
1344:   else
1345:       'normal'
1346: else if row['Arbitration_ID'] == 387 then:
1347:   if row['D6'] >= 14.5 and row['Arbitration_ID'] == 387 then:
1348:       return 'attack'
1349:   else
1350:       'normal'
1351: else if row['Arbitration_ID'] == 391 then:
1352:   if row['D6'] >= 15.5 then:
1353:       return 'attack'
1354:   else if row['TimeInterval'] <= 0.00023949146270751953 and row['D6'] <= 11.5 and row['P_CAN_ID_153'] >= 0.5 then:
1355:       return 'attack'
1356:   else if row['TimeInterval'] <= 0.00023949146270751953 and row['D6'] <= 9.5 and row['P_CAN_ID_492'] >= 0.5 then:

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1357:     return 'attack'
1358: else if row['TimeInterval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] >= 0.00022876262664794922 then:
1359:     return 'attack'
1360: else
1361:     'normal'
1362: else if row['Arbitration_ID'] == '356' then:
1363:     if row['D0'] >= 0.5 then:
1364:         return 'attack'
1365:     else if row['TimeInterval'] <= 0.00024116039276123047 and row['D4'] <= 39.5 and row['P_CAN_ID_386'] >= 0.5 then:
1366:         return 'attack'
1367:     else if row['TimeInterval'] <= 0.00023281574249267578 and row['P_CAN_ID_164'] >= 0.5 then:
1368:         return 'attack'
1369:     else
1370:         'normal'
1371: else if row['Arbitration_ID'] == '38D' then:
1372:     if row['D6'] <= 253.5 then:
1373:         return 'attack'
1374:     else if row['P_CAN_ID_260'] >= 0.5 and row['TimeInterval'] >= 0.0020750761032104492 then:
1375:         return 'attack'
1376:     else if row['TimeInterval'] <= 0.00023424625396728518 and row['D2'] <= 73.5 and row['P_CAN_ID_220'] >= 0.5 then:
1377:         return 'attack'
1378:     else if row['D2'] <= 73.5 and row['P_CAN_ID_387'] >= 0.5 and row['TimeInterval'] <= 0.00022852420806884766 then:
1379:         return 'attack'
1380:     else
1381:         'normal'
1382: else if row['Arbitration_ID'] == '53B' then:
1383:     if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 then:
1384:         return 'attack'
1385:     else if row['TimeInterval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 then:
1386:         return 'attack'
1387:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['TimeInterval'] <= 0.00021898746490478518 and row['TimeInterval'] >= 0.0002142190933227539 then:
1388:         return 'attack'
1389:     else if row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['TimeInterval'] >= 0.0007170438766479492 then:
1390:         return 'attack'
1391:     else if row['TimeInterval'] <= 0.00024020671844482422 then:
1392:         return 'attack'
1393:     else if row['TimeInterval'] >= 0.00030219554901123047 then:
1394:         return 'attack'
1395:     else
1396:         'normal'
1397: else if row['Arbitration_ID'] == '130' then:
1398:     if row['TimeInterval'] <= 0.00023496150970458984 and row['D5'] >= 7.5 then:
1399:         return 'attack'
1400:     else if row['TimeInterval'] >= 0.00035369396209716797 and row['D5'] >= 7.5 then:
1401:         return 'attack'
1402:     else if row['D5'] >= 7.5 and row['D0'] >= 16.5 then:
1403:         return 'attack'
1404:     else if row['D6'] >= 10.5 and row['D5'] >= 7.5 then:
1405:         return 'attack'
1406:     else if row['P_CAN_ID_2B0'] >= 0.5 and row['TimeInterval'] <= 0.00022637844085693362 and row['D0'] <= 4.5 then:
1407:         return 'attack'
1408:     else
1409:         'normal'
1410: else if row['D4'] >= 50.5 and row['D0'] >= 32.5 and row['TimeInterval'] >= 0.00029909610748291016 then:
1411:     return 'attack'
1412: else if row['D1'] >= 66.5 and row['D3'] >= 161.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
1413:     return 'attack'
1414: else if row['D6'] >= 111.5 and row['D3'] >= 161.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
1415:     return 'attack'
1416: else if row['D3'] >= 161.5 and row['D7'] >= 143.5 and row['TimeInterval'] <= 0.00022113323211669922 then:
1417:     return 'attack'
1418: else if row['TimeInterval'] >= 0.0013914108276367188 and row['P_CAN_ID_2B0'] >= 0.5 then:
1419:     return 'attack'
1420: else if row['TimeInterval'] >= 0.0003548860549926758 and row['D0'] >= 16.5 and row['D4'] >= 127.5 then:
1421:     return 'attack'
1422: else
1423:     'normal'

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