

FINAL HYBRID CLASSIFIER FOR CAR-CHALLENGE 2020 DATASET:

Details: Classifier is generated from the method of Logical Analysis of data (LAD)

Reference Paper: **CAVIDS: Real time intrusion detection system for connected autonomous vehicles using logical analysis of data**

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if row['Arbitration_ID'] == '000' :
    return 1

if row['TimePeriod'] <= 0.008427977561950684:
    return 1
if row['TimePeriod'] <= 0.06636488437652588 and row['TimePeriod'] >= 0.05364358425140381 :
    return 1

if row['Arbitration_ID'] == '2B0':

    if row['DLC'] >= 7.0 :
        return 1
    elif row['Time Interval'] >=0.0002846717834472656 and row['P_CAN_ID_164'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_251'] <=0.5and row['Time Interval'] >= 0.0002846717834472656 and
row['D5'] <=33.5 :
        return 1
    elif row['D4'] >=128.5and row['Time Interval'] <= 0.00019538402557373047 and
row['P_CAN_ID_164'] >=0.5 :
        return 1
    elif row['Time Interval'] <=0.00019538402557373047and row['D1'] <= 1.5 and
row['P_CAN_ID_164'] >=0.5 :
        return 1
    elif row['P_CAN_ID_251'] <=0.5 and row['Time Interval'] >= 0.0002846717834472656 :
        return 1
    elif row['P_CAN_ID_251'] <=0.5 and row['D1'] <= 253.5 and row['Time Interval']
<=0.00019538402557373047 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '4A2':

    if row['DLC'] >= 5.0 :
        return 1
    elif row['Time Interval'] >=0.0002111195 and row['P_CAN_ID_38D'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_485'] <=0.5 and row['Time Interval'] >= 0.0002111195 :
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        return 1
    elif row['Time Interval'] >= 0.0002111195 and row['Time Interval'] <= 0.0006757975 :
        return 1
    elif row['Time Interval'] <= 0.000119448 and row['Time Interval'] >= 0.00011205650000000001
and row['P_CAN_ID_483'] <= 0.5 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '4A4':

    if row['D0'] >= 15.5 :
        return 1
    elif row['D0'] <= 12.5 :
        return 1
    elif row['Time Interval'] >= 0.0003000495 :
        return 1
    elif row['Time Interval'] <= 0.000235081 and row['Time Interval'] >= 0.000208497 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '4A7':

    if row['DLC'] >= 5.0 :
        return 1
    elif row['Time Interval'] >= 0.0004811286926269531 :
        return 1
    elif row['Time Interval'] >= 0.00036263465881347656 :
        return 1
    elif row['Time Interval'] >= 0.00011539459228515625 and row['P_CAN_ID_251'] <= 0.5 and
row['Time Interval'] <= 0.00011694431304931642 :
        return 1
    elif row['Time Interval'] >= 0.00011050701141357422 and row['Time Interval'] <=
0.00011241436004638672 and row['P_CAN_ID_470'] <= 0.5 :
        return 1
    elif row['P_CAN_ID_42D'] <= 0.5 and row['P_CAN_ID_484'] <= 0.5 and row['Time Interval'] >=
0.00019860267639160156 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '4A9':

    if row['Time Interval'] >= 0.00029850006103515625 :
        return 1
    elif row['Time Interval'] <= 0.0002186298370361328 :
        return 1
    elif row['Time Interval'] <= 0.0002149343490600586 and row['Time Interval'] >=
0.00021398067474365237 :
        return 1
    elif row['Time Interval'] >= 0.00021183490753173828 and row['Time Interval'] <=
0.00021278858184814453 :
        return 1

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        elif row['Time Interval'] >= 0.0002186298370361328 and row['Time Interval'] <=
0.00023448467254638675 :
            return 1
        elif row['P_CAN_ID_470'] <=0.5 and row['Time Interval'] <= 0.00021588802337646484 and
row['Time Interval'] >= 0.0002149343490600586 :
            return 1
        elif row['P_CAN_ID_329'] >=0.5 and row['Time Interval'] <= 0.00022304058074951172 and
row['Time Interval'] >= 0.00020802021026611328 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '4C9':

        if row['Time Interval'] <= 0.00021708011627197266 :
            return 1
        elif row['Time Interval'] >= 0.00029647350311279297 :
            return 1
        elif row['Time Interval'] >= 0.00029647350311279297 and row['P_CAN_ID_386'] >= 0.5 :
            return 1
        elif row['Time Interval'] >= 0.00021708011627197266 and row['Time Interval'] <=
0.00022017955780029294 :
            return 1
        elif row['Time Interval'] <= 0.00023472309112548828 and row['Time Interval'] >=
0.0002315044403076172 :
            return 1
        elif row['P_CAN_ID_368'] <=0.5 and row['Time Interval'] <= 0.00022554397583007812 and
row['Time Interval'] >= 0.00022017955780029294 :
            return 1
        elif row['Time Interval'] <=0.00024020671844482422 and row['Time Interval'] >=
0.00021040439605712888 and row['P_CAN_ID_485'] >= 0.5 :
            return 1
        elif row['Time Interval'] <=0.00021708011627197266 and row['Time Interval'] >=
0.00021040439605712888 and row['P_CAN_ID_140'] >= 0.5 :
            return 1
        elif row['P_CAN_ID_329'] >=0.5 and row['Time Interval'] >= 0.00020802021026611328 and
row['Time Interval'] <= 0.00021326541900634766 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '4CB':

        if row['D1'] >= 10.5 :
            return 1
        elif row['Time Interval'] >= 0.0007909536361694336 and row['P_CAN_ID_485'] <= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00024116039276123047 and row['P_CAN_ID_164'] >= 0.5 :
            return 1
        elif row['Time Interval'] >= 0.00030350685119628906 and row['D0'] >= 128.5 :
            return 1
        elif row['Time Interval'] >= 0.00036394596099853516 and row['Time Interval'] <=
0.0004825592041015625 :

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        return 1
    elif row['D0'] <=2.0 and row['Time Interval'] >= 0.00022947788238525393 and row['Time
Interval'] <= 0.0002371072769165039 :
        return 1
    elif row['D0'] <=2.0 and row['P_CAN_ID_329'] <= 0.5 and row['Time Interval'] >=
0.0005388259887695312 :
        return 1
    elif row['P_CAN_ID_47F'] <=0.5 and row['Time Interval'] <= 0.00022947788238525393 and
row['D0'] >= 128.5 :
        return 1
    else:
        return 0
    if row['Arbitration_ID'] == '4F1':

        if row['DLC'] >= 6.0 :
            return 1
        elif row['Time Interval'] >= 0.00026297569274902344 :
            return 1
        elif row['Time Interval'] >=0.00020360946655273438 and row['D1'] <= 7.5 and
row['P_CAN_ID_386'] >= 0.5:
            return 1
        elif row['D1'] <=7.5 and row['Time Interval'] >= 0.00015103816986083984 and row['Time
Interval'] <= 0.00015366077423095703 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '5A6':

        if row['Time Interval'] >= 0.00030291080474853516 :
            return 1
        elif row['P_CAN_ID_53B'] <= 0.5 and row['Time Interval'] <= 0.00024306774139404294 :
            return 1
        elif row['Time Interval'] <= 0.00023257732391357422 and row['P_CAN_ID_541'] >= 0.5 :
            return 1
        elif row['Time Interval'] >= 0.001244187355041504 and row['P_CAN_ID_367'] <= 0.5 :
            return 1
        elif row['Time Interval'] >= 0.0007932186126708984 and row['Time Interval'] <=
0.0011066198348999023 :
            return 1
        elif row['P_CAN_ID_53B'] <=0.5 and row['Time Interval'] <= 0.0002168416976928711 and
row['Time Interval'] >= 0.0002149343490600586 :
            return 1
        elif row['P_CAN_ID_53B'] <=0.5 and row['Time Interval'] <= 0.00023257732391357422 and
row['Time Interval'] >= 0.0002290010452270508 :
            return 1
        elif row['P_CAN_ID_53B'] <=0.5 and row['Time Interval'] <= 0.0002130270004272461 and
row['Time Interval'] >= 0.00021088123321533203 :
            return 1
        elif row['P_CAN_ID_53B'] <=0.5 and row['Time Interval'] >= 0.000217437744140625 and
row['Time Interval'] <= 0.00021898746490478518 :
            return 1

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    elif row['Time Interval'] >= 0.00034356117248535156 and row['P_CAN_ID_381'] <= 0.5 and  
row['Time Interval'] <= 0.00040471553802490234 :  
    return 1  
    else:  
    return 0
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if row['Arbitration_ID'] == '5B0':
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    if row['DLC'] >= 6.0 :  
        return 1  
    elif row['D0'] >= 157.5 and row['Time Interval'] <= 0.00015616416931152344 :  
        return 1  
    elif row['D0'] >= 157.5 and row['Time Interval'] >= 0.00019943714141845703 :  
        return 1  
    else:  
        return 0
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if row['Arbitration_ID'] == '5BE':
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    if row['D3'] >= 3.5 :  
        return 1  
    elif row['D0'] >= 4.5 :  
        return 1  
    elif row['Time Interval'] >= 0.0003523826599121094 and row['Time Interval'] <=  
0.00037276744842529297 :  
        return 1  
    elif row['Time Interval'] >= 0.0003523826599121094 and row['P_CAN_ID_58B'] >= 0.5 :  
        return 1  
    elif row['Time Interval'] <= 0.0002351999282836914 and row['P_CAN_ID_48A'] >= 0.5 :  
        return 1  
    elif row['P_CAN_ID_368'] <= 0.5 and row['Time Interval'] >= 0.00043511390686035156 :  
        return 1  
    elif row['Time Interval'] <= 0.0002351999282836914 and row['P_CAN_ID_368'] <= 0.5 and  
row['Time Interval'] >= 0.0002282857894897461 :  
        return 1  
    else:  
        return 0
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if row['Arbitration_ID'] == '5CD':
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    if row['Time Interval'] >= 0.000301361083984375 :  
        return 1  
    elif row['Time Interval'] <= 0.00022268295288085938 :  
        return 1  
    elif row['Time Interval'] <= 0.00024056434631347656 and row['P_CAN_ID_568'] >= 0.5 :  
        return 1  
    elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_58B'] >= 0.5 :  
        return 1  
    elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_260'] >= 0.5 :  
        return 1
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elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_329'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_140'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_381'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_164'] >= 0.5 :
    return 1
elif row['Time Interval'] <= 0.00021660327911376953 and row['P_CAN_ID_386'] >= 0.5 :
    return 1
elif row['Time Interval'] <= 0.00021660327911376953 and row['P_CAN_ID_140'] >= 0.5 :
    return 1
elif row['Time Interval'] <= 0.00021660327911376953 and row['P_CAN_ID_164'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.0003260374069213867 and row['P_CAN_ID_387'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.000301361083984375 and row['Time Interval'] <=
0.0007874965667724609 and row['P_CAN_ID_386'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.000301361083984375 and row['Time Interval'] <=
0.002046346664428711 and row['P_CAN_ID_386'] >= 0.5 :
    return 1
elif row['Time Interval'] <= 0.00021660327911376953 and row['P_CAN_ID_329'] >= 0.5 and
row['Time Interval'] >= 0.00021278858184814453 :
    return 1
elif row['P_CAN_ID_52A'] >= 0.5 and row['Time Interval'] >= 0.0003260374069213867 and
row['Time Interval'] <= 0.0007874965667724609 :
    return 1
elif row['Time Interval'] >= 0.0002092123031616211 and row['P_CAN_ID_329'] >= 0.5 and
row['Time Interval'] <= 0.00021147727966308594 :
    return 1
elif row['P_CAN_ID_52A'] <= 0.5 and row['Time Interval'] >= 0.00023114681243896482 and
row['Time Interval'] <= 0.00023448467254638675 :
    return 1
else:
    return 0

if row['Arbitration_ID'] == '07F':

    if row['Time Interval'] >= 0.0003885030746459961 :
        return 1
    elif row['Time Interval'] <= 0.00023615360260009766 and row['P_CAN_ID_381'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023615360260009766 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023615360260009766 and row['P_CAN_ID_541'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023615360260009766 and row['Time Interval'] >=
0.00021898746490478518 :
        return 1
    elif row['Time Interval'] >= 0.0003001689910888672 and row['P_CAN_ID_381'] >= 0.5 :

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        return 1
    elif row['Time Interval'] >= 0.0003001689910888672 and row['P_CAN_ID_500'] >= 0.5:
        return 1
    elif row['Time Interval'] >= 0.0003470182418823242 and row['P_CAN_ID_520'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0003470182418823242 and row['Time Interval'] <=
0.0003701448440551758 :
        return 1
    elif row['P_CAN_ID_520'] <= 0.5 and row['Time Interval'] <= 0.0002143383026123047 :
        return 1
    elif row['P_CAN_ID_520'] <= 0.5 and row['Time Interval'] <= 0.0002187490463256836 :
        return 1
    elif row['P_CAN_ID_381'] >= 0.5 and row['Time Interval'] <= 0.00024902820587158203 :
        return 1
    elif row['P_CAN_ID_329'] <= 0.5 and row['Time Interval'] >= 0.00038802623748779297 :
        return 1
    elif row['P_CAN_ID_329'] <= 0.5 and row['Time Interval'] >= 0.0003707408905029297 :
        return 1
    elif row['Time Interval'] >= 0.00031197071075439453 and row['Time Interval'] <=
0.0003255605697631836 :
        return 1
    elif row['Time Interval'] >= 0.0002143383026123047 and row['Time Interval'] <=
0.0002187490463256836 :
        return 1
    elif row['Time Interval'] <= 0.00038802623748779297 and row['Time Interval'] >=
0.0003707408905029297 :
        return 1
    elif row['Time Interval'] <= 0.00023615360260009766 and row['P_CAN_ID_520'] <= 0.5 and
row['P_CAN_ID_386'] <= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0003001689910888672 and row['P_CAN_ID_520'] <= 0.5 and
row['Time Interval'] <= 0.0003019571304321289 :
        return 1
    elif row['Time Interval'] >= 0.0003470182418823242 and row['P_CAN_ID_329'] <= 0.5 and
row['P_CAN_ID_541'] <= 0.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '7C4':

    if row['D2'] >= 10.5 :
        return 1
    elif row['D1'] >= 25.5 :
        return 1
    elif row['D0'] >= 48.5 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '7CC':

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if row['D0'] >= 38.5 :
    return 1
elif row['D0'] >= 32.5 and row['D6'] >= 169.5 :
    return 1
elif row['D6'] >= 169.5 and row['D7'] <= 135.5 :
    return 1
elif row['D6'] >= 169.5 and row['D5'] <= 134.5 :
    return 1
elif row['D6'] >= 169.5 and row['D4'] <= 23.5 :
    return 1
elif row['D7'] >= 135.5 and row['D4'] <= 23.5 :
    return 1
elif row['D5'] >= 134.5 and row['D4'] <= 23.5 :
    return 1
elif row['D3'] >= 35.5 and row['D0'] >= 32.5 and row['D5'] >= 134.5 :
    return 1
elif row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['Time Interval'] <=
0.00022947788238525393 :
    return 1
elif row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['D6'] <= 169.5 :
    return 1
elif row['D3'] >= 35.5 and row['D0'] <= 32.5 and row['Time Interval'] >=
0.0003546476364135742 :
    return 1
elif row['D3'] >= 35.5 and row['Time Interval'] <=0.00022947788238525393 and row['D7'] >=
135.5 :
    return 1
elif row['D3'] <= 35.5 and row['D0'] >= 32.5 and row['D7'] >= 135.5 :
    return 1
elif row['D3'] <= 35.5 and row['D6'] <= 169.5 and row['D7'] >= 135.5 :
    return 1
elif row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D5'] >= 134.5 :
    return 1
elif row['D0'] <= 32.5 and row['D6'] <= 169.5 and row['D4'] >= 23.5 :
    return 1
else:
    return 0
if row['Arbitration_ID'] == '7D0':

    if row['D2'] >= 10.5 :
        return 1
    elif row['D1'] >= 25.5 :
        return 1
    elif row['D7'] <= 169.0 :
        return 1
    elif row['D0'] >= 48.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '7D4':

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if row['D6'] <= 169.5 :
    return 1
elif row['D5'] <= 169.5 :
    return 1
elif row['D7'] <= 169.5 :
    return 1
elif row['P_CAN_ID_260'] >= 0.5 :
    return 1
elif row['D3'] <= 11.5 :
    return 1
elif row['P_CAN_ID_436'] >= 0.5 :
    return 1
elif row['P_CAN_ID_52A'] >= 0.5 :
    return 1
elif row['P_CAN_ID_5BE'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.0002524852752685547 and row['Time Interval'] <=
0.00044167041778564453 :
    return 1
elif row['Time Interval'] <= 0.0002524852752685547 and row['D4'] <= 169.5 :
    return 1
elif row['D4'] <= 169.5 and row['D3'] <= 169.5 :
    return 1
elif row['D4'] <= 169.5 and row['D0'] >= 47.5 :
    return 1
elif row['D3'] <= 169.5 and row['D0'] >= 47.5 :
    return 1
elif row['D1'] >= 23.5 and row['D0'] >= 47.5 :
    return 1
else:
    return 0

if row['Arbitration_ID'] == '7D8':

    if row['D0'] >= 48.5 :
        return 1
    elif row['D3'] >= 41.5 and row['Time Interval'] <= 0.00022709369659423828 :
        return 1
    elif row['D0'] <= 32.5 and row['D7'] <= 128.5 :
        return 1
    elif row['D0'] <= 32.5 and row['D0'] >= 16.5 :
        return 1
    elif row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['Time Interval'] >=
0.00029850006103515625 :
        return 1
    elif row['D3'] >= 41.5 and row['D6'] >= 56.5 and row['D2'] >= 57.5 :
        return 1
    elif row['D3'] >= 41.5 and row['D6'] <= 56.5 and row['D0'] <= 32.5 :
        return 1

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        elif row['D3'] >= 41.5 and row['Time Interval'] >= 0.00029850006103515625 and row['D2'] >=
57.5 :
            return 1
        elif row['D3'] >= 41.5 and row['Time Interval'] >= 0.00029850006103515625 and row['D7'] >=
128.5 :
            return 1
        elif row['D6'] >= 56.5 and row['D2'] <= 57.5 and row['D0'] >= 32.5 :
            return 1
        elif row['D6'] >= 56.5 and row['D0'] <= 32.5 and row['D6'] <= 128.5 :
            return 1
        elif row['D6'] >= 56.5 and row['D7'] >= 128.5 and row['D6'] <= 128.5 :
            return 1
        elif row['D6'] <= 56.5 and row['Time Interval'] <= 0.00022709369659423828 and row['D2'] <=
57.5 :
            return 1
        elif row['D6'] <= 56.5 and row['Time Interval'] >= 0.00029850006103515625 and row['D2'] >=
57.5 :
            return 1
        elif row['Time Interval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D7'] >=
128.5 :
            return 1
        elif row['Time Interval'] <= 0.00022709369659423828 and row['D0'] >= 32.5 and row['D6'] >=
128.5 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '7DC':

        if row['D0'] >= 48.5 :
            return 1
        elif row['D3'] >= 18.5 and row['D2'] >= 25.5 :
            return 1
        elif row['D3'] >= 18.5 and row['Time Interval'] <= 0.00022959709167480471 :
            return 1
        elif row['D3'] >= 18.5 and row['D5'] <= 133.5 :
            return 1
        elif row['D3'] <= 18.5 and row['D4'] <= 133.5 :
            return 1
        elif row['D2'] <= 25.5 and row['Time Interval'] <= 0.00022959709167480471 :
            return 1
        elif row['Time Interval'] <= 0.00022959709167480471 and row['D5'] <= 133.5 :
            return 1
        elif row['Time Interval'] <= 0.00022959709167480471 and row['D0'] >= 3.5 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '42D':

        if row['Time Interval'] >= 0.0014973878860473633 :
            return 1
        elif row['D4'] >= 2.5 and row['Time Interval'] >= 0.0002999305725097656 :

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    return 1
elif row['D4'] >= 2.5 and row['D7'] >= 33.5 :
    return 1
elif row['D4'] <= 2.5 and row['D5'] <= 145.5 :
    return 1
elif row['D4'] <= 2.5 and row['D6'] >= 7.5 :
    return 1
elif row['Time Interval'] >= 0.0002999305725097656 and row['P_CAN_ID_387'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.0003370046615600586 and row['Time Interval'] <=
0.0004252195358276367 :
    return 1
elif row['D4'] >= 2.5 and row['Time Interval'] <= 0.0002366304397583008 and
row['P_CAN_ID_140'] >= 0.5 :
    return 1
elif row['D4'] >= 2.5 and row['Time Interval'] <= 0.0002366304397583008 and
row['P_CAN_ID_368'] >= 0.5 :
    return 1
elif row['D4'] >= 2.5 and row['Time Interval'] <= 0.0002366304397583008 and
row['P_CAN_ID_329'] >= 0.5 :
    return 1
elif row['D4'] >= 2.5 and row['Time Interval'] <= 0.00022494792938232422 and
row['P_CAN_ID_389'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.00022494792938232422 and row['Time Interval'] <=
0.0002280473709106445 and row['P_CAN_ID_140'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.00022494792938232422 and row['Time Interval'] <=
0.0002280473709106445 and row['P_CAN_ID_386'] >= 0.5:
    return 1
elif row['Time Interval'] >= 0.00022494792938232422 and row['Time Interval'] <=
0.0002280473709106445 and row['P_CAN_ID_387'] >= 0.5 :
    return 1
elif row['Time Interval'] >= 0.00022494792938232422 and row['P_CAN_ID_391'] >= 0.5 and
row['Time Interval'] <= 0.00022637844085693362 :
    return 1
elif row['P_CAN_ID_389'] <= 0.5 and row['Time Interval'] >= 0.00022709369659423828 and
row['Time Interval'] <= 0.0002275705337524414 :
    return 1
elif row['P_CAN_ID_340'] <= 0.5 and row['P_CAN_ID_421'] <= 0.5 and row['Time Interval'] >=
0.0009629726409912109 :
    return 1
elif row['Time Interval'] >= 0.00022494792938232422 and row['Time Interval'] <=
0.00022637844085693362 :
    return 1
elif row['D4'] >= 2.5 and row['Time Interval'] <= 0.00022494792938232422 and
row['P_CAN_ID_394'] <= 0.5 :
    return 1
else:
    return 0

```

```

if row['Arbitration_ID'] == '43':

    if row['D0'] >= 4.5 :
        return 1
    elif row['D1'] >= 16.5 :
        return 1
    elif row['D0'] <= 3.5 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '44E':

    if row['Time Interval'] <= 0.00023746490478515625 :
        return 1
    elif row['Time Interval'] >= 0.00029790401458740234 :
        return 1
    elif row['Time Interval'] <= 0.00023746490478515625 and row['P_CAN_ID_387'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00029790401458740234 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00029790401458740234 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021588802337646484 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021588802337646484 and row['Time Interval'] >=
0.00020825862884521484 and row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00021135807037353518 and row['Time Interval'] <=
0.0002218484878540039 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '48C':

    if row['D2'] >= 3.5 :
        return 1
    elif row['P_CAN_ID_58B'] <= 0.5 and row['Time Interval'] >= 0.0012749433517456055 :
        return 1
    elif row['Time Interval'] <= 0.00023305416107177732 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00024020671844482422 and row['Time Interval'] >=
0.00021827220916748047 and row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['D1'] <= 32.5 and row['Time Interval'] >= 0.0002275705337524414 and row['Time
Interval'] <= 0.00023305416107177732 :
        return 1
    else:

```

```

    return 0

if row['Arbitration_ID'] == '49F':

    if row['D1'] <= 254.5 :
        return 1
    elif row['Time Interval'] >= 0.0013284683227539062 :
        return 1
    elif row['Time Interval'] <= 0.00023806095123291016 and row['P_CAN_ID_453'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00034165382385253906 and row['Time Interval'] <=
0.0011444091796875 :
        return 1
    elif row['Time Interval'] <= 0.0002321004867553711 and row['Time Interval'] >=
0.00023114681243896482 :
        return 1
    elif row['Time Interval'] >= 0.00034165382385253906 and row['Time Interval'] <=
0.001280069351196289 :
        return 1
    elif row['Time Interval'] <= 0.00023305416107177732 and row['Time Interval'] >=
0.00023245811462402344 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '50A':

    if row['D0'] >= 11.5 :
        return 1
    elif row['D0'] <= 8.5 :
        return 1
    elif row['Time Interval'] <= 0.00023090839385986328 and row['Time Interval'] >=
0.00022816658020019529 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '50C':

    if row['D2'] >= 3.5 :
        return 1
    elif row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['D0'] <= 63.5 :
        return 1
    elif row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['Time Interval'] >= 0.00027501583099365234
:
        return 1
    elif row['D6'] >= 1.5 and row['D4'] >= 5.5 and row['Time Interval'] <= 0.00022518634796142578
:
        return 1

```

```

        elif row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['Time Interval'] >=
0.00027501583099365234 :
            return 1
        elif row['D4'] >= 5.5 and row['D0'] <= 63.5 and row['Time Interval'] <=
0.00022518634796142578 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '50E':

    if row['D4'] >= 10.5 :
        return 1
    elif row['D3'] >= 32.5 :
        return 1
    elif row['Time Interval'] >= 0.00022423267364501953 and row['P_CAN_ID_470'] <= 0.5 and
row['Time Interval'] <= 0.00022685527801513672 :
        return 1
    elif row['P_CAN_ID_507'] <= 0.5 and row['P_CAN_ID_50C'] <= 0.5 and row['Time Interval'] >=
0.0009480714797973633 :
        return 1
    elif row['Time Interval'] <= 0.00022840499877929685 and row['Time Interval'] >=
0.00022709369659423828 :
        return 1
    elif row['Time Interval'] >= 0.0004830360412597656 and row['P_CAN_ID_507'] <= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00022423267364501953 and row['Time Interval'] <=
0.00022840499877929685 and row['P_CAN_ID_470'] <= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0003540515899658203 and row['P_CAN_ID_453'] <= 0.5 and
row['Time Interval'] <= 0.0003758668899536133 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '52A':

    if row['D4'] >= 2.5 :
        return 1
    elif row['D7'] >= 136.5 and row['Time Interval'] >= 0.00035750865936279297 :
        return 1
    elif row['D7'] >= 136.5 and row['Time Interval'] <= 0.0002321004867553711 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '53B':

    if row['Time Interval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 :
        return 1

```

```

        elif row['P_CAN_ID_4CB'] <= 0.5 and row['Time Interval'] <= 0.00021898746490478518 and
row['Time Interval'] >= 0.0002142190933227539 :
            return 1
        elif row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['Time Interval'] >=
0.0007170438766479492 :
            return 1
        elif row['Time Interval'] <= 0.00024020671844482422 :
            return 1
        elif row['Time Interval'] >= 0.00030219554901123047 :
            return 1
        else:
            return 0

```

```

if row['Arbitration_ID'] == '53E':

```

```

    if row['D4'] <= 7.5 :
        return 1
    elif row['D5'] >= 208.0 :
        return 1
    elif row['D4'] >= 12.5 and row['Time Interval'] <= 0.000240325927734375 :
        return 1
    elif row['D4'] >= 12.5 and row['Time Interval'] >= 0.00033855438232421875 :
        return 1
    elif row['Time Interval'] >= 0.00033855438232421875 :
        return 1
    elif row['D4'] >= 12.5 and row['D5'] <= 131.5 :
        return 1
    elif row['D4'] >= 12.5 and row['D5'] >= 131.5 and row['P_CAN_ID_4A7'] <= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00022852420806884766 and row['D5'] <= 133.5 and row['Time
Interval'] <= 0.00023150444030761716 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '53F':

```

```

    if row['P_CAN_ID_329'] <= 0.5 and row['Time Interval'] >= 0.0010530948638916016 :
        return 1
    elif row['P_CAN_ID_4A9'] <= 0.5 and row['Time Interval'] >= 0.00021088123321533203 and
row['Time Interval'] <= 0.00021398067474365237 :
        return 1
    elif row['P_CAN_ID_4A9'] <= 0.5 and row['Time Interval'] >= 0.00035858154296875 and
row['Time Interval'] <= 0.00070953369140625 :
        return 1
    elif row['Time Interval'] >= 0.00021088123321533203 and row['P_CAN_ID_52A'] >= 0.5 and
row['Time Interval'] <= 0.00022304058074951172 :
        return 1

```

```

        elif row['P_CAN_ID_2B0'] <= 0.5 and row['Time Interval'] <= 0.0009695291519165039 and
row['Time Interval'] >= 0.00070953369140625 :
            return 1
        elif row['Time Interval'] <= 0.00022089481353759766 :
            return 1
        elif row['Time Interval'] >= 0.00031447410583496094 :
            return 1
        elif row['Time Interval'] >= 0.00022089481353759766 and row['Time Interval'] <=
0.00022304058074951172 :
            return 1
        elif row['Time Interval'] <= 0.00023341178894042966 and row['Time Interval'] >=
0.00023055076599121094 :
            return 1
        else:
            return 0

```

```

if row['Arbitration_ID'] == '57F':

```

```

    if row['D3'] >= 1.5 :
        return 1
    elif row['D7'] >= 2.5 :
        return 1
    elif row['Time Interval'] >= 0.0009579658508300781 :
        return 1
    elif row['Time Interval'] >= 0.00031244754791259766 and row['P_CAN_ID_568'] <= 0.5 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '58B':

```

```

    if row['D1'] >= 3.5 :
        return 1
    elif row['P_CAN_ID_48A'] <= 0.5 and row['Time Interval'] <= 0.0002356767654418945 and
row['Time Interval'] >= 0.0002321004867553711 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '140':

```

```

    if row['D4'] >= 32.5 :
        return 1
    elif row['P_CAN_ID_130'] <= 0.5 and row['Time Interval'] >= 0.0009586811065673828 :
        return 1
    elif row['D3'] <= 107.5 and row['D1'] >= 128.5 :
        return 1
    elif row['P_CAN_ID_130'] <= 0.5 and row['Time Interval'] >= 0.0003088712692260742 and
row['P_CAN_ID_000'] <= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0009586811065673828 :

```



```

        return 1
    elif row['P_CAN_ID_130'] <= 0.5 and row['Time Interval'] <= 0.00024688243865966797 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '220':

    if row['D4'] >= 1.5 and row['Time Interval'] >= 0.0017951726913452148 :
        return 1
    elif row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['D6'] <= 15.5 :
        return 1
    elif row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['Time Interval'] >=
0.0005820989608764648 :
        return 1
    elif row['D4'] >= 1.5 and row['D2'] >= 130.5 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['D5'] <= 244.5 and row['P_CAN_ID_260'] >= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['Time Interval'] <= 0.00023996829986572266 and
row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['D6'] <= 15.5 and row['Time Interval'] <=
0.00022852420806884766 :
        return 1
    elif row['D4'] >= 1.5 and row['D0'] >= 16.5 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['Time Interval'] >= 0.0005820989608764648 and row['D0'] >= 26.5
:
        return 1
    elif row['D4'] >= 1.5 and row['D2'] >= 130.5 :
        return 1
    elif row['D4'] >= 1.5 and row['P_CAN_ID_153'] <= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['P_CAN_ID_153'] >= 0.5 and row['Time Interval'] >=
0.0003529787063598633 :
        return 1
    elif row['D2'] >= 130.5 and row['P_CAN_ID_153'] <= 0.5 and row['Time Interval'] <=
0.00022852420806884766 :
        return 1
    elif row['P_CAN_ID_153'] >= 0.5 and row['D5'] <= 26.5 and row['Time Interval'] >=
0.0003529787063598633 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '260':

    if row['D3'] >= 48.5 :
        return 1

```

```

elif row['D3'] <= 47.5 :
    return 1
elif row['D5'] >= 189.5 and row['D4'] >= 254.5 and row['D0'] <= 5.5 :
    return 1
else:
    return 0

if row['Arbitration_ID'] == '329':

    if row['D7'] >= 16.5 :
        return 1
    elif row['D4'] >= 49.5 and row['Time Interval'] >= 0.0005239248275756836 and
row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['D1'] >= 198.5 and row['D0'] >= 132.5 and row['D0'] <= 213.5 :
        return 1
    elif row['D4'] >= 49.5 and row['Time Interval'] <= 0.0002187490463256836 :
        return 1
    elif row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['D5'] <= 44.5 :
        return 1
    elif row['D4'] >= 49.5 and row['D1'] >= 198.5 and row['Time Interval'] <=
0.00022518634796142578 :
        return 1
    elif row['D1'] >= 198.5 and row['D5'] >= 44.5 and row['Time Interval'] <=
0.0002187490463256836 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '366':

    if row['DLC'] >= 7.5 :
        return 1
    elif row['D2'] >= 31.5 and row['D5'] <= 3.5 :
        return 1
    elif row['Time Interval'] >= 0.0003230571746826172 and row['D1'] <= 14.5 and row['D3'] >=
53.5 :
        return 1
    elif row['Time Interval'] >= 0.0003230571746826172 and row['D3'] >= 54.5 and row['D5'] <= 1.5
:
        return 1
    elif row['Time Interval'] >= 0.0003230571746826172 and row['P_CAN_ID_140'] >= 0.5 and
row['D5'] <= 1.5 :
        return 1
    elif row['P_CAN_ID_356'] <= 0.5 and row['Time Interval'] >= 0.0003230571746826172 :
        return 1
    elif row['D5'] <= 3.5 and row['D4'] <= 44.5 and row['Time Interval'] >= 0.0003230571746826172
:
        return 1
    elif row['Time Interval'] <= 0.00020825862884521484 and row['D3'] >= 53.5 and row['D5'] <=
1.5 :

```

```

    return 1
else:
    return 0

if row['Arbitration_ID'] == '367':

    if row['P_CAN_ID_366'] <= 0.5 and row['D4'] >= 12.5 :
        return 1
    elif row['Time Interval'] <= 0.00023639202117919922 and row['D3'] >= 63.5 :
        return 1
    elif row['Time Interval'] >= 0.0003033876419067383 and row['D3'] >= 63.5 :
        return 1
    elif row['D6'] >= 217.5 and row['D6'] <= 227.5 and row['Time Interval'] >=
0.0009442567825317383 :
        return 1
    elif row['D6'] >= 217.5 and row['D4'] <= 3.5 and row['Time Interval'] >=
0.0009442567825317383 :
        return 1
    elif row['D7'] <= 2.5 and row['D6'] >= 33.5 and row['Time Interval'] >= 0.0009442567825317383
:
        return 1
    elif row['D6'] >= 227.5 and row['D4'] <= 3.5 and row['Time Interval'] >=
0.0004284381866455078 :
        return 1
    elif row['P_CAN_ID_366'] <= 0.5 and row['Time Interval'] >= 0.0004284381866455078 :
        return 1
    elif row['P_CAN_ID_366'] >= 0.5 and row['D7'] <= 7.5 and row['Time Interval'] >=
0.0009442567825317383 :
        return 1
    elif row['P_CAN_ID_366'] <= 0.5 and row['Time Interval'] >= 0.0003033876419067383 and
row['D7'] <= 7.5 :
        return 1
    elif row['Time Interval'] <= 0.00023639202117919922 and row['D7'] <= 7.5 and
row['P_CAN_ID_340'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023639202117919922 and row['D6'] >= 217.5 and row['D4'] <=
3.5 :
        return 1
    elif row['Time Interval'] >= 0.0003033876419067383 and row['D7'] <= 10.5 and row['D6'] >=
217.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '368':

    if row['P_CAN_ID_367'] <= 0.5 and row['D4'] >= 3.5 :
        return 1
    elif row['D5'] <= 118.5 and row['Time Interval'] >= 0.0016666650772094727 :

```

```

        return 1
    elif row['D7'] >= 64.5 and row['Time Interval'] >= 0.0016666650772094727 :
        return 1
    elif row['Time Interval'] <= 0.0002351999282836914 and row['P_CAN_ID_220'] >= 0.5 and
row['D1'] <= 1.5 :
        return 1
    elif row['Time Interval'] >= 0.0003129243850708008 and row['D5'] <= 38.5 and
row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['D7'] <= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['Time Interval'] <=
0.00023901462554931638 :
        return 1
    elif row['D5'] >= 12.5 and row['Time Interval'] >= 0.0007234811782836914 and row['D5'] <=
24.5 :
        return 1
    elif row['P_CAN_ID_367'] <= 0.5 and row['Time Interval'] >= 0.0007234811782836914 :
        return 1
    elif row['P_CAN_ID_367'] <= 0.5 and row['Time Interval'] <= 0.0002351999282836914 and
row['D1'] <= 3.5 :
        return 1
    elif row['P_CAN_ID_367'] <= 0.5 and row['Time Interval'] >= 0.0003129243850708008 and
row['D1'] <= 3.5 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '389':

```

```

    if row['Time Interval'] >= 0.00030171871185302734 and row['D4'] >= 1.5 :
        return 1
    elif row['D4'] >= 1.5 and row['D3'] <= 47.5 :
        return 1
    elif row['D4'] >= 1.5 and row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['D4'] >= 1.5 and row['P_CAN_ID_260'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and
row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023996829986572266 and row['D4'] >= 1.5 and row['D6'] <=
29.5 :
        return 1
    elif row['Time Interval'] >= 0.00030171871185302734 and row['D3'] <= 47.5 and
row['P_CAN_ID_340'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_421'] <= 0.5 and row['D4'] >= 1.5 and row['Time Interval'] <=
0.00022113323211669922 :
        return 1
    elif row['D3'] <= 47.5 and row['D6'] <= 132.5 and row['Time Interval'] >=
0.0010281801223754883 :

```

```

        return 1
    elif row['Time Interval'] <= 0.0002321004867553711 and row['Time Interval'] >=
0.00023043155670166016 and row['P_CAN_ID_368'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0010281801223754883 :
        return 1
    elif row['Time Interval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.0002321004867553711 and row['P_CAN_ID_368'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023996829986572266 and row['D3'] <= 47.5 and
row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00030171871185302734 and row['P_CAN_ID_421'] <= 0.5 and
row['P_CAN_ID_000'] <= 0.5 :
        return 1
    elif row['P_CAN_ID_421'] <= 0.5 and row['Time Interval'] >= 0.00022852420806884766 and
row['Time Interval'] <= 0.0002321004867553711 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '394':

```

```

    if row['D7'] <= 247.5 and row['D0'] >= 1.5 :
        return 1
    elif row['D7'] <= 247.5 and row['D5'] >= 84.5 and row['Time Interval'] <=
0.00023901462554931638 :
        return 1
    elif row['D7'] <= 247.5 and row['Time Interval'] >= 0.00036585330963134766 and
row['P_CAN_ID_387'] >= 0.5 :
        return 1
    elif row['D6'] >= 62.5 and row['D5'] >= 84.5 and row['Time Interval'] <=
0.00023615360260009766 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '410':

```

```

    if row['D4'] >= 1.5 :
        return 1
    elif row['P_CAN_ID_436'] <= 0.5 and row['P_CAN_ID_340'] <= 0.5 and row['Time Interval'] >=
0.0004889965057373047 :
        return 1
    elif row['Time Interval'] >= 0.0003629922866821289 :
        return 1
    elif row['Time Interval'] >= 0.0002290010452270508 and row['Time Interval'] <=
0.0002301931381225586 :
        return 1

```

```

        elif row['P_CAN_ID_436'] <= 0.5 and row['Time Interval'] <= 0.0002321004867553711 and
row['Time Interval'] >= 0.0002301931381225586 :
            return 1
        elif row['P_CAN_ID_436'] <= 0.5 and row['Time Interval'] >= 0.00022709369659423828 and
row['Time Interval'] <= 0.0002290010452270508 :
            return 1

    else:
        return 0

if row['Arbitration_ID'] == '412':

    if row['D3'] >= 12.5 :
        return 1
    elif row['D3'] <= 11.5 :
        return 1
    elif row['Time Interval'] >= 0.0003401041030883789 and row['P_CAN_ID_260'] <= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023043155670166016 and row['Time Interval'] >=
0.00022780895233154294 :
        return 1
    elif row['Time Interval'] <= 0.00022780895233154294 and row['Time Interval'] >=
0.00022614002227783203 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '420':

    if row['Time Interval'] >= 0.00030171871185302734 and row['D4'] <= 251.5 :
        return 1
    elif row['Time Interval'] >= 0.00030171871185302734 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['D4'] <= 251.5 and row['P_CAN_ID_368'] >= 0.5 :
        return 1
    elif row['D0'] >= 208.5 and row['Time Interval'] >= 0.0006350278854370117 :
        return 1
    elif row['D0'] <= 112.5 and row['D0'] >= 80.5 and row['Time Interval'] >=
0.0006350278854370117 :
        return 1
    elif row['D4'] <= 251.5 and row['Time Interval'] <= 0.00022089481353759766 and
row['P_CAN_ID_164'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0006350278854370117 :
        return 1
    elif row['D4'] <= 251.5 and row['Time Interval'] <= 0.00022089481353759766 :
        return 1
    elif row['P_CAN_ID_38D'] <= 0.5 and row['Time Interval'] >= 0.00022089481353759766 and
row['Time Interval'] <= 0.00022304058074951172 :
        return 1

```

```

        elif row['Time Interval'] <= 0.00022518634796142578 and row['Time Interval'] >=
0.00021350383758544922 and row['P_CAN_ID_368'] >= 0.5 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '421':

    if row['Time Interval'] >= 0.00029850006103515625 and row['D0'] <= 253.5 :
        return 1
    elif row['Time Interval'] >= 0.00029850006103515625 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['D0'] <= 253.5 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['D0'] <= 253.5 and row['P_CAN_ID_368'] >= 0.5 :
        return 1
    elif row['D7'] <= 118.5 and row['D0'] <= 253.5 and row['D7'] >= 91.5 :
        return 1
    elif row['D0'] <= 253.5 and row['P_CAN_ID_260'] >= 0.5 and row['D7'] >= 14.5 :
        return 1
    elif row['D0'] <= 253.5 :
        return 1
    elif row['Time Interval'] >= 0.0006260871887207031 :
        return 1
    elif row['Time Interval'] <= 0.0002275705337524414 and row['P_CAN_ID_368'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_420'] <= 0.5 and row['Time Interval'] >= 0.00022542476654052732 and
row['Time Interval'] <= 0.0002275705337524414 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '436':

    if row['DLC'] >= 6.0 :
        return 1
    elif row['Time Interval'] >= 0.000746607780456543 :
        return 1
    elif row['Time Interval'] <= 0.0001556873321533203 and row['Time Interval'] >=
0.0001538991928100586 :
        return 1
    elif row['Time Interval'] <= 0.000746607780456543 and row['Time Interval'] >=
0.0003085136413574219 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '453':

    if row['DLC'] >= 6.5 :
        return 1

```

```

        elif row['Time Interval'] >= 0.0002671480178833008 and row['P_CAN_ID_2B0'] >= 0.5 :
            return 1
        elif row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['Time Interval'] >=
0.0002671480178833008 :
            return 1
        elif row['D2'] >= 143.5 and row['Time Interval'] <= 0.00016760826110839844 and
row['P_CAN_ID_2B0'] >= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00017511844635009766 and row['D2'] >= 143.5 and
row['P_CAN_ID_140'] >= 0.5 :
            return 1
        elif row['D2'] >= 143.5 and row['D2'] <= 144.5 and row['Time Interval'] <=
0.00016760826110839844 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '470':

    if row['D3'] >= 4.5 and row['Time Interval'] >= 0.0011584758758544922 :
        return 1
    elif row['Time Interval'] >= 0.000607013702392578 and row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and
row['P_CAN_ID_260'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and
row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 and
row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.000301361083984375 and row['D2'] >= 4.5 and row['D1'] <= 64.5 :
        return 1
    elif row['Time Interval'] >= 0.000301361083984375 and row['D7'] <= 104.5 and row['D5'] >=
80.5 :
        return 1
    elif row['Time Interval'] >= 0.000301361083984375 and row['D5'] >= 80.5 and row['D3'] >= 4.5 :
        return 1
    elif row['Time Interval'] >= 0.000301361083984375 and row['D7'] <= 80.5 and row['D3'] >= 4.5 :
        return 1
    elif row['Time Interval'] >= 0.000301361083984375 and row['D3'] >= 4.5 and row['D7'] >= 141.5
:
        return 1
    elif row['P_CAN_ID_453'] <= 0.5 and row['D2'] >= 4.5 and row['Time Interval'] >=
0.0011584758758544922 :
        return 1
    elif row['D2'] >= 4.5 and row['D1'] <= 64.5 and row['Time Interval'] <=
0.00022375583648681638 :
        return 1

```



```

        elif row['D5'] >= 80.5 and row['Time Interval'] <= 0.00022375583648681638 and row['D7'] <=
65.5 :
            return 1
        elif row['Time Interval'] <= 0.00022375583648681638 and row['D7'] <= 80.5 and row['D3'] >=
4.5 :
            return 1
        elif row['Time Interval'] >= 0.0011584758758544922 :
            return 1
        elif row['Time Interval'] <= 0.00023138523101806638 and row['D3'] >= 4.5 :
            return 1
        elif row['Time Interval'] >= 0.000301361083984375 and row['P_CAN_ID_453'] <= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00023138523101806638 and row['Time Interval'] >=
0.00021898746490478518 and row['P_CAN_ID_140'] >= 0.5 :
            return 1
        elif row['P_CAN_ID_368'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['Time Interval'] <=
0.00022375583648681638 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '479':

    if row['D0'] >= 82.5 :
        return 1
    elif row['D0'] <= 73.5 :
        return 1
    elif row['D0'] <= 75.5 and row['Time Interval'] >= 0.0003428459167480469 :
        return 1
    elif row['D0'] <= 75.5 and row['P_CAN_ID_391'] <= 0.5 and row['Time Interval'] <=
0.00022923946380615237 :
        return 1
    elif row['P_CAN_ID_368'] <= 0.5 and row['Time Interval'] >= 0.0003428459167480469 and
row['D0'] >= 76.5 :
        return 1
    elif row['Time Interval'] <= 0.00023627281188964844 and row['D0'] <= 75.5 and row['Time
Interval'] >= 0.0002199411392211914 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '483':

    if row['D0'] >= 23.5 :
        return 1
    elif row['D0'] <= 18.5 :
        return 1
    elif row['Time Interval'] >= 0.0011943578720092773 :
        return 1
    elif row['Time Interval'] >= 0.00023114681243896482 and row['Time Interval'] <=
0.00023329257965087888 :

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        return 1
    else:
        return 0

if row['Arbitration_ID'] == '484':

    if row['D4'] >= 3.5 :
        return 1
    elif row['Time Interval'] >= 0.00034737586975097656 :
        return 1
    elif row['Time Interval'] >= 0.0002290010452270508 and row['Time Interval'] <=
0.00022971630096435547 :
        return 1
    elif row['Time Interval'] <= 0.00023353099822998047 and row['D0'] >= 47.5 and row['Time
Interval'] >= 0.00023245811462402344 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '485':

    if row['DLC'] >= 6.0 :
        return 1
    elif row['P_CAN_ID_387'] <= 0.5 and row['P_CAN_ID_453'] <= 0.5 and row['Time Interval'] >=
0.001543879508972168 :
        return 1
    elif row['D0'] <= 2.5 and row['Time Interval'] >= 0.0002605915069580078 :
        return 1
    elif row['Time Interval'] >= 0.0001494884490966797 and row['Time Interval'] <=
0.00015294551849365234 :
        return 1
    elif row['D0'] <= 2.5 and row['Time Interval'] <= 0.00015795230865478516 and
row['P_CAN_ID_453'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00015342235565185547 and row['P_CAN_ID_470'] >= 0.5 and
row['Time Interval'] >= 0.00015294551849365234 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '490':

    if row['D0'] >= 1.5 :
        return 1
    elif row['D2'] >= 8.5 and row['Time Interval'] <= 0.0002294778823852539 :
        return 1
    elif row['Time Interval'] <= 0.0002294778823852539 and row['P_CAN_ID_340'] >= 0.5 :
        return 1
    elif row['D7'] >= 146.5 and row['Time Interval'] <= 0.0002294778823852539 and
row['P_CAN_ID_4F1'] >= 0.5 :
        return 1

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        elif row['D5'] >= 112.5 and row['Time Interval'] >= 0.0012420415878295898 and
row['P_CAN_ID_386'] >= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.0002294778823852539 and row['Time Interval'] >=
0.00022494792938232422 and row['P_CAN_ID_389'] >= 0.5 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '492':

    if row['D1'] <= 253.5 :
        return 1
    elif row['Time Interval'] <= 0.00024020671844482422 and row['P_CAN_ID_220'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_387'] >= 0.5 and row['Time Interval'] <= 0.00023365020751953125 :
        return 1
    elif row['Time Interval'] <= 0.00023365020751953125 and row['Time Interval'] >=
0.00022923946380615237 :
        return 1
    elif row['Time Interval'] >= 0.0006629228591918945 and row['P_CAN_ID_2B0'] >= 0.5 and
row['Time Interval'] <= 0.000764012336730957 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '495':

    if row['D5'] >= 2.5 :
        return 1
    elif row['Time Interval'] <= 0.0002204179763793945 and row['P_CAN_ID_386'] <= 0.5 and
row['Time Interval'] >= 0.0002199411392211914 :
        return 1
    elif row['Time Interval'] >= 0.00034248828887939453 :
        return 1
    elif row['Time Interval'] >= 0.00021922588348388672 and row['Time Interval'] <=
0.0002199411392211914 :
        return 1
    elif row['Time Interval'] <= 0.00022339820861816404 and row['P_CAN_ID_389'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.0002204179763793945 and row['P_CAN_ID_329'] <= 0.5 and
row['Time Interval'] <= 0.00022089481353759766 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '500':

    if row['D0'] >= 1.5 :
        return 1
    elif row['Time Interval'] >= 0.0010155439376831055 :

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        return 1
    elif row['Time Interval'] >= 0.0003679990768432617 and row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.000545501708984375 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00023376941680908203 and row['Time Interval'] <=
0.00023651123046875003 :
        return 1
    elif row['Time Interval'] >= 0.0006865262985229492 and row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_495'] <= 0.5 and row['D4'] >= 8.5 and row['Time Interval'] >=
0.0007345676422119141 :
        return 1
    elif row['D4'] >= 8.5 and row['Time Interval'] >= 0.00040400028228759766 and
row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '507':

    if row['DLC'] >= 6.0 :
        return 1
    elif row['Time Interval'] >= 0.0007494688034057617 :
        return 1
    elif row['Time Interval'] <= 0.00016510486602783203 and row['P_CAN_ID_4F1'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00015556812286376953 and row['Time Interval'] <=
0.0001569986343383789 :
        return 1
    elif row['D0'] <= 7.5 and row['Time Interval'] >= 0.00026547908782958984 and row['Time
Interval'] <= 0.0007494688034057617 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '520':

    if row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_164'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021851062774658203 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021851062774658203 and row['P_CAN_ID_389'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00030553340911865234 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 :

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        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_389'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_140'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['Time Interval'] >=
0.00022649765014648438 and row['P_CAN_ID_260'] >= 0.5 :
        return 1
    elif row['Time Interval'] >= 0.00021851062774658203 and row['P_CAN_ID_368'] <= 0.5 and
row['Time Interval'] <= 0.0002213716506958008 :
        return 1
    elif row['Time Interval'] >= 0.00022649765014648438 and row['P_CAN_ID_50C'] >= 0.5 and
row['Time Interval'] <= 0.00023305416107177732 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '541':

    if row['D1'] >= 4.5 :
        return 1
    elif row['Time Interval'] >= 0.00026857852935791016 and row['P_CAN_ID_2B0'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.0002280473709106445 and row['Time Interval'] >=
0.00022399425506591797 :
        return 1
    elif row['D1'] >= 3.5 and row['P_CAN_ID_260'] <= 0.5 and row['Time Interval'] >=
0.0009649991989135742 :
        return 1
    elif row['D1'] >= 3.5 and row['Time Interval'] <= 0.0007129907608032227 and row['Time
Interval'] >= 0.0004055500030517578 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '544':

    if row['D0'] <= 254.5 :
        return 1
    elif row['Time Interval'] >= 0.0002244710922241211 and row['P_CAN_ID_453'] <= 0.5 and
row['Time Interval'] <= 0.00022685527801513672 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '553':

    if row['D2'] <= 24.5 :
        return 1
    elif row['D1'] >= 1.5 :

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        return 1
    elif row['P_CAN_ID_544'] <= 0.5 and row['Time Interval'] >= 0.0008126497268676758 :
        return 1
    elif row['Time Interval'] >= 0.00022089481353759766 and row['Time Interval'] <=
0.00022459030151367188 :
        return 1
    elif row['Time Interval'] >= 0.00035750865936279297 and row['Time Interval'] <=
0.0003980398178100586 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '559':

    if row['Time Interval'] <= 0.000217437744140625 and row['P_CAN_ID_52A'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.000217437744140625 and row['P_CAN_ID_329'] >= 0.5 and
row['Time Interval'] >= 0.00020992755889892578 :
        return 1
    elif row['P_CAN_ID_453'] <= 0.5 and row['Time Interval'] >= 0.00020992755889892578 and
row['Time Interval'] <= 0.000211196517944336 :
        return 1
    elif row['Time Interval'] >= 0.00029349327087402344 :
        return 1
    elif row['Time Interval'] <= 0.000217437744140625 :
        return 1
    elif row['Time Interval'] >= 0.000217437744140625 and row['Time Interval'] <=
0.00021922588348388672 :
        return 1
    elif row['P_CAN_ID_453'] <= 0.5 and row['Time Interval'] <= 0.00022494792938232422 and
row['Time Interval'] >= 0.00021922588348388672 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '563':

    if row['D6'] >= 1.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '568':

    if row['D4'] >= 128.5 :
        return 1
    elif row['D4'] <= 127.5 :
        return 1
    elif row['Time Interval'] >= 0.0003466606140136719 and row['D3'] >= 142.5 :
        return 1
    elif row['Time Interval'] >= 0.00022995471954345703 and row['Time Interval'] <=
0.00023353099822998044 :

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        return 1
    elif row['Time Interval'] >= 0.0009143352508544923 and row['D3'] <= 138.5 :
        return 1
    elif row['D3'] >= 139.5 and row['Time Interval'] <= 0.00022995471954345703 and row['Time
Interval'] >= 0.00022649765014648438 :
        return 1
    elif row['D3'] >= 139.5 and row['D5'] <= 64.5 and row['Time Interval'] >=
0.002015829086303711 :
        return 1
    elif row['D3'] >= 141.5 and row['D5'] <= 64.5 and row['Time Interval'] >=
0.0009143352508544923 :
        return 1
    else:
        return 0
    if row['Arbitration_ID'] == '593':

        if row['DLC'] >= 7.0 :
            return 1
        elif row['Time Interval'] <= 0.00019514560699462888 and row['Time Interval'] >=
0.00019133090972900393 :
            return 1
        else:
            return 0
    if row['Arbitration_ID'] == '572':

        if row['P_CAN_ID_520'] <= 0.5 and row['Time Interval'] <= 0.0003933906555175781 and
row['Time Interval'] >= 0.0003484487533569336 :
            return 1
        elif row['Time Interval'] >= 0.00021183490753173828 and row['Time Interval'] <=
0.00022542476654052734 and row['P_CAN_ID_329'] >= 0.5 :
            return 1
        elif row['Time Interval'] >= 0.00020802021026611328 and row['Time Interval'] <=
0.00022089481353759766 and row['P_CAN_ID_541'] >= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00024056434631347656 :
            return 1
        elif row['Time Interval'] >= 0.0003933906555175781 :
            return 1
        else:
            return 0

    if row['Arbitration_ID'] == '47F':

        if row['D2'] <= 254.5 :
            return 1
        elif row['Time Interval'] <= 0.0002351999282836914 and row['P_CAN_ID_2B0'] >= 0.5 :
            return 1
        else:
            return 0

    if row['Arbitration_ID'] == '48A':

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if row['D5'] >= 2.5 and row['P_CAN_ID_470'] >= 0.5 :
    return 1
elif row['D5'] >= 2.5 and row['P_CAN_ID_340'] >= 0.5 :
    return 1
elif row['D5'] >= 2.5 and row['Time Interval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 :
    return 1
elif row['D5'] >= 2.5 and row['Time Interval'] >= 0.00046002864837646484 and row['D6'] >= 32.5 :
    return 1
elif row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['D6'] >= 32.5 :
    return 1
elif row['D5'] >= 2.5 and row['D7'] >= 126.5 and row['Time Interval'] <= 0.00022554397583007812 :
    return 1
elif row['D5'] >= 2.5 and row['D2'] >= 128.5 and row['D6'] >= 32.5 :
    return 1
elif row['D5'] >= 2.5 and row['D6'] >= 32.5 and row['Time Interval'] >= 0.0003553628921508789 :
    return 1
elif row['D5'] >= 2.5 and row['P_CAN_ID_140'] <= 0.5 and row['Time Interval'] <= 0.0002199411392211914 :
    return 1
elif row['Time Interval'] <= 0.0002351999282836914 and row['D6'] >= 32.5 and row['D6'] <= 95.5 :
    return 1
else:
    return 0

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if row['Arbitration_ID'] == '153':

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    if row['D3'] <= 254.5 and row['D1'] <= 129.5 :
        return 1
    elif row['D3'] <= 254.5 and row['P_CAN_ID_260'] >= 0.5 :
        return 1
    elif row['D3'] <= 254.5 and row['P_CAN_ID_340'] >= 0.5 :
        return 1
    elif row['D6'] >= 145.5 and row['D7'] >= 206.5 :
        return 1
    elif row['D6'] >= 145.5 and row['D7'] <= 45.5 :
        return 1
    elif row['D7'] <= 97.5 and row['D6'] >= 207.5 :
        return 1
    elif row['D3'] <= 254.5 and row['D7'] <= 126.5 and row['D6'] >= 175.5 :
        return 1
    elif row['D3'] <= 254.5 and row['D7'] >= 206.5 and row['D6'] >= 64.5 :
        return 1
    elif row['D3'] <= 254.5 and row['D7'] <= 206.5 and row['D6'] <= 17.5 :
        return 1

```



```

elif row['D3'] <= 254.5 and row['D7'] <= 97.5 and row['D6'] >= 130.5 :
    return 1
elif row['D7'] >= 126.5 and row['D6'] <= 145.5 and row['D6'] >= 97.5 :
    return 1
elif row['D7'] <= 126.5 and row['D7'] >= 45.5 and row['D6'] <= 64.5 :
    return 1
elif row['D3'] <= 254.5 and row['D7'] >= 126.5 and row['D6'] <= 145.5 :
    return 1
elif row['D3'] <= 254.5 and row['D7'] <= 177.5 and row['D6'] >= 207.5 :
    return 1
elif row['D7'] <= 126.5 and row['P_CAN_ID_47F'] <= 0.5 and row['D6'] <= 48.5 :
    return 1
else:
    return 0

if row['Arbitration_ID'] == '164':

    if row['DLC'] >= 6.0 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '251':

    if row['D4'] >= 0.5 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '340':

    if row['Time Interval'] <= 0.00023305416107177732 and row['D4'] <= 133.5 and row['D6'] >=
181.5 :
        return 1
    elif row['Time Interval'] <= 0.00023305416107177732 and row['D6'] <= 92.5 and row['D4'] >=
214.5 :
        return 1
    elif row['Time Interval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 and
row['P_CAN_ID_220'] >= 0.5 :
        return 1
    elif row['D4'] >= 133.5 and row['D6'] <= 92.5 and row['D1'] >= 3.5 :
        return 1
    elif row['D4'] <= 133.5 and row['D0'] <= 251.5 and row['D6'] >= 181.5 :
        return 1
    elif row['D6'] >= 181.5 and row['D1'] >= 3.5 and row['D4'] <= 165.5 :
        return 1
    elif row['D6'] <= 181.5 and row['D1'] >= 3.5 and row['D4'] >= 214.5 :
        return 1
    elif row['Time Interval'] <= 0.00023305416107177732 and row['D1'] >= 3.5 :
        return 1
    else:

```

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        return 0
    if row['Arbitration_ID'] == '381':

        if row['D2'] >= 64.5 and row['D7'] >= 5.5 and row['Time Interval'] <= 0.00022709369659423828
:
            return 1
        elif row['Time Interval'] <= 0.00023496150970458984 and row['D7'] >= 5.5 and row['D2'] <=
60.5 :
            return 1
        elif row['D5'] >= 140.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 :
            return 1
        elif row['D2'] >= 68.5 and row['Time Interval'] <= 0.00022709369659423828 :
            return 1
        elif row['D2'] >= 64.5 and row['P_CAN_ID_2B0'] >= 0.5 and row['Time Interval'] >=
0.0007737874984741211 :
            return 1
        elif row['Time Interval'] <= 0.00023496150970458984 and row['D2'] <= 60.5 and row['D5'] >=
214.5 :
            return 1
        elif row['D5'] >= 140.5 and row['D2'] <= 60.5 and row['Time Interval'] <=
0.00022709369659423828 :
            return 1
        elif row['D1'] >= 143.5 and row['D7'] >= 5.5 and row['D2'] <= 60.5 :
            return 1
        elif row['D7'] >= 5.5 and row['D2'] <= 60.5 and row['Time Interval'] >=
0.00035369396209716797 :
            return 1
        elif row['D2'] >= 66.5 and row['D1'] >= 207.5 and row['Time Interval'] <=
0.00022709369659423828 :
            return 1
        elif row['P_CAN_ID_2B0'] <= 0.5 and row['D2'] >= 65.5 and row['Time Interval'] <=
0.00022709369659423828 :
            return 1
        else:
            return 0

    if row['Arbitration_ID'] == '386':

        if row['D0'] >= 50.5 and row['Time Interval'] <= 0.00022518634796142578 and
row['P_CAN_ID_260'] >= 0.5 :
            return 1
        elif row['P_CAN_ID_260'] >= 0.5 and row['Time Interval'] <= 0.00022995471954345703 :
            return 1
        elif row['D0'] <= 50.5 and row['Time Interval'] <= 0.00022518634796142578 and row['D6'] >=
130.5 :
            return 1
        elif row['D0'] <= 50.5 and row['Time Interval'] <= 0.00022518634796142578 and row['D2'] >=
121.5 :
            return 1

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        elif row['D0'] <= 50.5 and row['Time Interval'] >= 0.0006536245346069336 and
row['P_CAN_ID_2B0'] >= 0.5 :
            return 1
        elif row['D5'] >= 65.5 and row['Time Interval'] >= 0.0002988576889038086 and
row['P_CAN_ID_260'] >= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00022518634796142578 and row['D7'] <= 127.5 and
row['P_CAN_ID_2B0'] >= 0.5 :
            return 1
        elif row['Time Interval'] <= 0.00022518634796142578 and row['D6'] >= 130.5 and row['D2'] <=
121.5 :
            return 1
        elif row['Time Interval'] <= 0.00022518634796142578 and row['D6'] <= 130.5 and row['D2'] >=
121.5 :
            return 1
        else:
            return 0

if row['Arbitration_ID'] == '387':

    if row['D6'] >= 14.5 and row['Arbitration_ID'] == '387' :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '391':

    if row['D6'] >= 15.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['D6'] <= 11.5 and
row['P_CAN_ID_153'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['D6'] <= 9.5 and
row['P_CAN_ID_492'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023949146270751953 and row['P_CAN_ID_387'] >= 0.5 and
row['Time Interval'] >= 0.00022876262664794922 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '356':

    if row['D0'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00024116039276123047 and row['D4'] <= 39.5 and
row['P_CAN_ID_386'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00023281574249267578 and row['P_CAN_ID_164'] >= 0.5 :
        return 1
    else:
        return 0

```

```

if row['Arbitration_ID'] == '38D':

    if row['D6'] <= 253.5 :
        return 1
    elif row['P_CAN_ID_260'] >= 0.5 and row['Time Interval'] >= 0.0020750761032104492 :
        return 1
    elif row['Time Interval'] <= 0.00023424625396728518 and row['D2'] <= 73.5 and
row['P_CAN_ID_220'] >= 0.5 :
        return 1
    elif row['D2'] <= 73.5 and row['P_CAN_ID_387'] >= 0.5 and row['Time Interval'] <=
0.00022852420806884766 :
        return 1
    else:
        return 0
if row['Arbitration_ID'] == '53B':

    if row['Time Interval'] <= 0.00021898746490478518 and row['P_CAN_ID_329'] >= 0.5 :
        return 1
    elif row['Time Interval'] <= 0.00021898746490478518 and row['P_CAN_ID_52A'] >= 0.5 :
        return 1
    elif row['P_CAN_ID_4CB'] <= 0.5 and row['Time Interval'] <= 0.00021898746490478518 and
row['Time Interval'] >= 0.0002142190933227539 :
        return 1
    elif row['P_CAN_ID_4CB'] <= 0.5 and row['P_CAN_ID_260'] <= 0.5 and row['Time Interval'] >=
0.0007170438766479492 :
        return 1
    elif row['Time Interval'] <= 0.00024020671844482422 :
        return 1
    elif row['Time Interval'] >= 0.00030219554901123047 :
        return 1
    else:
        return 0

if row['Arbitration_ID'] == '130':

    if row['Time Interval'] <= 0.00023496150970458984 and row['D5'] >= 7.5 :
        return 1
    elif row['Time Interval'] >= 0.00035369396209716797 and row['D5'] >= 7.5 :
        return 1
    elif row['D5'] >= 7.5 and row['D0'] >= 16.5 :
        return 1
    elif row['D6'] >= 10.5 and row['D5'] >= 7.5 :
        return 1
    elif row['P_CAN_ID_2B0'] >= 0.5 and row['Time Interval'] <= 0.00022637844085693362 and
row['D0'] <= 4.5 :
        return 1
    else:
        return 0

if row['D4'] >= 50.5 and row['D0'] >= 32.5 and row['Time Interval'] >= 0.00029909610748291016 :
    return 1

```

```
if row['D1'] >= 66.5 and row['D3'] >= 161.5 and row['Time Interval'] <= 0.00022113323211669922 :
    return 1
if row['D6'] >= 111.5 and row['D3'] >= 161.5 and row['Time Interval'] <= 0.00022113323211669922
:
    return 1
if row['D3'] >= 161.5 and row['D7'] >= 143.5 and row['Time Interval'] <= 0.00022113323211669922
:
    return 1

if row['Time Interval'] >= 0.0013914108276367188 and row['P_CAN_ID_2B0'] >= 0.5 :
    return 1
if row['Time Interval'] >= 0.0003548860549926758 and row['D0'] >= 16.5 and row['D4'] >= 127.5 :
    return 1

else:
    return 0
```