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1 C:\ProgramData\Anaconda3\envs\MCL\python.exe C:/Users/Luca/PycharmProjects/mcl-activity-monitoring/offlineModels/BaseModel.py
2 2022-05-24 16:49:53.463690: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll'; dlerror: cudart64_110.dll not found
3 2022-05-24 16:49:53.463776: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
4
5 280 trials detected for ('activation', 'optimizer', 'dropout_rate', 'epochs', 'batch_size')
6 2022-05-24 16:49:57.011732: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlerror : nvcuda.dll not found
7 2022-05-24 16:49:57.011809: W tensorflow/stream_executor/cuda/cuda_driver.cc:269] failed call to cuInit: UNKNOWN ERROR (303)
8 2022-05-24 16:49:57.013760: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] retrieving CUDA diagnostic information for host: PC-Luca
9 2022-05-24 16:49:57.013866: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:176] hostname: PC-Luca
10 2022-05-24 16:49:57.014084: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX AVX2
11 To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
12
13 **** (1/280) ****
14 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
15 SCORE: 0.63925 at epoch 22
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16
17 ***** (2/280) *****
18 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
19 SCORE: 0.61645 at epoch 25
20
21 ***** (3/280) *****
22 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
23 SCORE: 0.63627 at epoch 25
24
25 ***** (4/280) *****
26 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
27 SCORE: 0.63033 at epoch 25
28
29 ***** (5/280) *****
30 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
31 SCORE: 0.63528 at epoch 20
32
33 ***** (6/280) *****
34 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
35 SCORE: 0.62339 at epoch 25
36
37 ***** (7/280) *****
38 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
39 SCORE: 0.60852 at epoch 20
40
41 ***** (8/280) *****
42 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
43 SCORE: 0.61546 at epoch 26
44
45 ***** (9/280) *****
46 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
47 SCORE: 0.60159 at epoch 24
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49 ***** (10/280) *****
50 Search({'activation': 'tanh', 'optimizer': 'Adam', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
51 SCORE: 0.51933 at epoch 1
52
53 ***** (11/280) *****
54 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
55 SCORE: 0.60803 at epoch 30
56
57 ***** (12/280) *****
58 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
59 SCORE: 0.59267 at epoch 26
60
61 ***** (13/280) *****
62 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
63 SCORE: 0.61497 at epoch 30
64
65 ***** (14/280) *****
66 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
67 SCORE: 0.59465 at epoch 24
68
69 ***** (15/280) *****
70 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
71 SCORE: 0.60258 at epoch 30
72
73 ***** (16/280) *****
74 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
75 SCORE: 0.58771 at epoch 26
76
77 ***** (17/280) *****
78 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
79 SCORE: 0.60208 at epoch 26
80
81 ***** (18/280) *****
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82 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})  
83 SCORE: 0.56194 at epoch 26  
84  
85 ***** (19/280) *****  
86 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})  
87 SCORE: 0.59564 at epoch 26  
88  
89 ***** (20/280) *****  
90 Search({'activation': 'tanh', 'optimizer': 'SGD', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})  
91 SCORE: 0.57532 at epoch 20  
92  
93 ***** (21/280) *****  
94 Search({'activation': 'tanh', 'optimizer': 'Adamax', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})  
95 SCORE: 0.62636 at epoch 25  
96  
97 ***** (22/280) *****  
98 Search({'activation': 'tanh', 'optimizer': 'Adamax', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})  
99 SCORE: 0.61546 at epoch 19  
100  
101 ***** (23/280) *****  
102 Search({'activation': 'tanh', 'optimizer': 'Adamax', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})  
103 SCORE: 0.62438 at epoch 20  
104  
105 ***** (24/280) *****  
106 Search({'activation': 'tanh', 'optimizer': 'Adamax', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})  
107 SCORE: 0.60902 at epoch 20  
108  
109 ***** (25/280) *****  
110 Search({'activation': 'tanh', 'optimizer': 'Adamax', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
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110 25})
111 SCORE: 0.62339 at epoch 20
112
113 ***** (26/280) *****
114 Search({'activation': 'tanh', 'optimizer': 'Adamax',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
115 SCORE: 0.62537 at epoch 24
116
117 ***** (27/280) *****
118 Search({'activation': 'tanh', 'optimizer': 'Adamax',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
119 SCORE: 0.62289 at epoch 24
120
121 ***** (28/280) *****
122 Search({'activation': 'tanh', 'optimizer': 'Adamax',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
123 SCORE: 0.61992 at epoch 19
124
125 ***** (29/280) *****
126 Search({'activation': 'tanh', 'optimizer': 'Adamax',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
127 SCORE: 0.61744 at epoch 24
128
129 ***** (30/280) *****
130 Search({'activation': 'tanh', 'optimizer': 'Adamax',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
131 SCORE: 0.56739 at epoch 27
132
133 ***** (31/280) *****
134 Search({'activation': 'tanh', 'optimizer': 'RMSprop',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
135 SCORE: 0.63826 at epoch 30
136
137 ***** (32/280) *****
138 Search({'activation': 'tanh', 'optimizer': 'RMSprop'
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138 ', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size':  
25})  
139 SCORE: 0.64222 at epoch 30  
140  
141 ***** (33/280) *****  
142 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.1, 'epochs': 30, 'batch_size':  
25})  
143 SCORE: 0.65015 at epoch 30  
144  
145 ***** (34/280) *****  
146 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.3, 'epochs': 30, 'batch_size':  
25})  
147 SCORE: 0.65659 at epoch 30  
148  
149 ***** (35/280) *****  
150 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.2, 'epochs': 30, 'batch_size':  
25})  
151 SCORE: 0.66353 at epoch 30  
152  
153 ***** (36/280) *****  
154 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.5, 'epochs': 30, 'batch_size':  
25})  
155 SCORE: 0.62884 at epoch 30  
156  
157 ***** (37/280) *****  
158 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.6, 'epochs': 30, 'batch_size':  
25})  
159 SCORE: 0.63578 at epoch 30  
160  
161 ***** (38/280) *****  
162 Search({'activation': 'tanh', 'optimizer': 'RMSprop'  
' , 'dropout_rate': 0.7, 'epochs': 30, 'batch_size':  
25})  
163 SCORE: 0.6219 at epoch 16  
164  
165 ***** (39/280) *****
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166 Search({'activation': 'tanh', 'optimizer': 'RMSprop',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
   25})
167 Restoring model weights from the end of the best
epoch: 16.
168 Epoch 26: early stopping
169 SCORE: 0.58226 at epoch 21
170
171 ***** (40/280) *****
172 Search({'activation': 'tanh', 'optimizer': 'RMSprop',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
   25})
173 Restoring model weights from the end of the best
epoch: 16.
174 Epoch 26: early stopping
175 SCORE: 0.52874 at epoch 16
176
177 ***** (41/280) *****
178 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
   25})
179 SCORE: 0.51883 at epoch 30
180
181 ***** (42/280) *****
182 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
   25})
183 SCORE: 0.49158 at epoch 30
184
185 ***** (43/280) *****
186 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
   25})
187 SCORE: 0.51239 at epoch 30
188
189 ***** (44/280) *****
190 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
   25})
191 SCORE: 0.49554 at epoch 30
192
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193 ***** (45/280) *****
194 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
25})
195 SCORE: 0.50644 at epoch 30
196
197 ***** (46/280) *****
198 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
199 SCORE: 0.49405 at epoch 23
200
201 ***** (47/280) *****
202 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
203 SCORE: 0.4886 at epoch 30
204
205 ***** (48/280) *****
206 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
207 SCORE: 0.48117 at epoch 30
208
209 ***** (49/280) *****
210 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
211 SCORE: 0.47968 at epoch 30
212
213 ***** (50/280) *****
214 Search({'activation': 'tanh', 'optimizer': 'Adagrad',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
215 SCORE: 0.45639 at epoch 30
216
217 ***** (51/280) *****
218 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
219 SCORE: 0.64519 at epoch 30
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220
221 ***** (52/280) *****
222 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
25})
223 SCORE: 0.63776 at epoch 16
224
225 ***** (53/280) *****
226 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
25})
227 SCORE: 0.64916 at epoch 30
228
229 ***** (54/280) *****
230 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
25})
231 SCORE: 0.63082 at epoch 24
232
233 ***** (55/280) *****
234 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
25})
235 SCORE: 0.63677 at epoch 24
236
237 ***** (56/280) *****
238 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
239 SCORE: 0.62537 at epoch 26
240
241 ***** (57/280) *****
242 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
243 SCORE: 0.61992 at epoch 26
244
245 ***** (58/280) *****
246 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
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247 SCORE: 0.61794 at epoch 24
248
249 ***** (59/280) *****
250 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
   25})
251 SCORE: 0.60357 at epoch 24
252
253 ***** (60/280) *****
254 Search({'activation': 'tanh', 'optimizer': 'Nadam',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
   25})
255 SCORE: 0.5441 at epoch 16
256
257 ***** (61/280) *****
258 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
   25})
259 SCORE: 0.33796 at epoch 30
260
261 ***** (62/280) *****
262 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
   25})
263 SCORE: 0.32656 at epoch 30
264
265 ***** (63/280) *****
266 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
   25})
267 SCORE: 0.33251 at epoch 30
268
269 ***** (64/280) *****
270 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
   25})
271 SCORE: 0.32755 at epoch 30
272
273 ***** (65/280) *****
274 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
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274 25})
275 SCORE: 0.32953 at epoch 30
276
277 ***** (66/280) *****
278 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
279 SCORE: 0.32408 at epoch 30
280
281 ***** (67/280) *****
282 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
283 SCORE: 0.32309 at epoch 29
284
285 ***** (68/280) *****
286 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
287 SCORE: 0.32161 at epoch 30
288
289 ***** (69/280) *****
290 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
291 SCORE: 0.32111 at epoch 30
292
293 ***** (70/280) *****
294 Search({'activation': 'tanh', 'optimizer': 'Adadelta',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
295 SCORE: 0.31814 at epoch 30
296
297 ***** (71/280) *****
298 Search({'activation': 'sigmoid', 'optimizer': 'Adam',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
299 SCORE: 0.52527 at epoch 24
300
301 ***** (72/280) *****
302 Search({'activation': 'sigmoid', 'optimizer': 'Adam',
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302 ', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size':  
25})  
303 SCORE: 0.53518 at epoch 25  
304  
305 ***** (73/280) *****  
306 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.1, 'epochs': 30, 'batch_size':  
25})  
307 SCORE: 0.5555 at epoch 28  
308  
309 ***** (74/280) *****  
310 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.3, 'epochs': 30, 'batch_size':  
25})  
311 SCORE: 0.51239 at epoch 25  
312  
313 ***** (75/280) *****  
314 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.2, 'epochs': 30, 'batch_size':  
25})  
315 SCORE: 0.54014 at epoch 30  
316  
317 ***** (76/280) *****  
318 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.5, 'epochs': 30, 'batch_size':  
25})  
319 SCORE: 0.50446 at epoch 25  
320  
321 ***** (77/280) *****  
322 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.6, 'epochs': 30, 'batch_size':  
25})  
323 SCORE: 0.49356 at epoch 24  
324  
325 ***** (78/280) *****  
326 Search({'activation': 'sigmoid', 'optimizer': 'Adam'  
' , 'dropout_rate': 0.7, 'epochs': 30, 'batch_size':  
25})  
327 SCORE: 0.49009 at epoch 24  
328  
329 ***** (79/280) *****
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330 Search({'activation': 'sigmoid', 'optimizer': 'Adam',
            'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
            25})
331 SCORE: 0.48959 at epoch 24
332
333 ***** (80/280) *****
334 Search({'activation': 'sigmoid', 'optimizer': 'Adam',
            'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
            25})
335 SCORE: 0.4782 at epoch 30
336
337 ***** (81/280) *****
338 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
            'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
            25})
339 SCORE: 0.45441 at epoch 30
340
341 ***** (82/280) *****
342 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
            'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
            25})
343 SCORE: 0.45292 at epoch 30
344
345 ***** (83/280) *****
346 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
            'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
            25})
347 SCORE: 0.45441 at epoch 30
348
349 ***** (84/280) *****
350 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
            'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
            25})
351 SCORE: 0.4554 at epoch 30
352
353 ***** (85/280) *****
354 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
            'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
            25})
355 SCORE: 0.4559 at epoch 30
356
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357 ***** (86/280) *****
358 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
359 SCORE: 0.44896 at epoch 30
360
361 ***** (87/280) *****
362 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
363 SCORE: 0.44549 at epoch 30
364
365 ***** (88/280) *****
366 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
367 SCORE: 0.43954 at epoch 24
368
369 ***** (89/280) *****
370 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
371 SCORE: 0.42765 at epoch 24
372
373 ***** (90/280) *****
374 Search({'activation': 'sigmoid', 'optimizer': 'SGD',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
375 SCORE: 0.33796 at epoch 27
376
377 ***** (91/280) *****
378 Search({'activation': 'sigmoid', 'optimizer': 'Adamax',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
379 SCORE: 0.51635 at epoch 30
380
381 ***** (92/280) *****
382 Search({'activation': 'sigmoid', 'optimizer': 'Adamax',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
25})
383 SCORE: 0.5218 at epoch 27
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384
385 ***** (93/280) *****
386 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
387 SCORE: 0.4995 at epoch 30
388
389 ***** (94/280) *****
390 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
391 SCORE: 0.49901 at epoch 27
392
393 ***** (95/280) *****
394 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
395 SCORE: 0.49653 at epoch 27
396
397 ***** (96/280) *****
398 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
399 SCORE: 0.4886 at epoch 27
400
401 ***** (97/280) *****
402 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
403 SCORE: 0.49405 at epoch 22
404
405 ***** (98/280) *****
406 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
407 SCORE: 0.48167 at epoch 29
408
409 ***** (99/280) *****
410 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
```

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411 SCORE: 0.46729 at epoch 30
412
413 ***** (100/280) *****
414 Search({'activation': 'sigmoid', 'optimizer': 'Adamax', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
415 SCORE: 0.45441 at epoch 30
416
417 ***** (101/280) *****
418 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
419 SCORE: 0.55104 at epoch 26
420
421 ***** (102/280) *****
422 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
423 SCORE: 0.51734 at epoch 26
424
425 ***** (103/280) *****
426 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
427 SCORE: 0.55798 at epoch 25
428
429 ***** (104/280) *****
430 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
431 SCORE: 0.53469 at epoch 25
432
433 ***** (105/280) *****
434 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
435 SCORE: 0.54361 at epoch 25
436
437 ***** (106/280) *****
438 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
```

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438 batch_size': 25})
439 SCORE: 0.52329 at epoch 25
440
441 ***** (107/280) *****
442 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
443 SCORE: 0.5114 at epoch 25
444
445 ***** (108/280) *****
446 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
447 SCORE: 0.48612 at epoch 30
448
449 ***** (109/280) *****
450 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
451 SCORE: 0.48761 at epoch 30
452
453 ***** (110/280) *****
454 Search({'activation': 'sigmoid', 'optimizer': 'RMSprop', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
455 SCORE: 0.49058 at epoch 30
456
457 ***** (111/280) *****
458 Search({'activation': 'sigmoid', 'optimizer': 'Adagrad', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
459 SCORE: 0.21209 at epoch 30
460
461 ***** (112/280) *****
462 Search({'activation': 'sigmoid', 'optimizer': 'Adagrad', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
463 SCORE: 0.19029 at epoch 30
464
465 ***** (113/280) *****
466 Search({'activation': 'sigmoid', 'optimizer': '
```

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466 Adagrad', 'dropout_rate': 0.1, 'epochs': 30, '
    batch_size': 25})
467 SCORE: 0.20416 at epoch 30
468
469 ***** (114/280) *****
470 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.3, 'epochs': 30, '
    batch_size': 25})
471 SCORE: 0.19078 at epoch 27
472
473 ***** (115/280) *****
474 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.2, 'epochs': 30, '
    batch_size': 25})
475 SCORE: 0.19425 at epoch 30
476
477 ***** (116/280) *****
478 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.5, 'epochs': 30, '
    batch_size': 25})
479 SCORE: 0.19326 at epoch 18
480
481 ***** (117/280) *****
482 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.6, 'epochs': 30, '
    batch_size': 25})
483 SCORE: 0.19029 at epoch 13
484
485 ***** (118/280) *****
486 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.7, 'epochs': 30, '
    batch_size': 25})
487 SCORE: 0.19177 at epoch 20
488
489 ***** (119/280) *****
490 Search({'activation': 'sigmoid', 'optimizer': '
    Adagrad', 'dropout_rate': 0.8, 'epochs': 30, '
    batch_size': 25})
491 SCORE: 0.1888 at epoch 1
492
493 ***** (120/280) *****
```

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494 Search({'activation': 'sigmoid', 'optimizer': 'Adagrad', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
495 SCORE: 0.1888 at epoch 1
496
497 ***** (121/280) *****
498 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
499 SCORE: 0.58969 at epoch 25
500
501 ***** (122/280) *****
502 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
503 SCORE: 0.52775 at epoch 30
504
505 ***** (123/280) *****
506 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
507 SCORE: 0.57532 at epoch 25
508
509 ***** (124/280) *****
510 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
511 SCORE: 0.53816 at epoch 30
512
513 ***** (125/280) *****
514 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
515 SCORE: 0.55055 at epoch 24
516
517 ***** (126/280) *****
518 Search({'activation': 'sigmoid', 'optimizer': 'Nadam', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
519 SCORE: 0.51437 at epoch 20
520
```

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521 ***** (127/280) *****
522 Search({'activation': 'sigmoid', 'optimizer': 'Nadam',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
   25})
523 SCORE: 0.50198 at epoch 16
524
525 ***** (128/280) *****
526 Search({'activation': 'sigmoid', 'optimizer': 'Nadam',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
   25})
527 SCORE: 0.5005 at epoch 16
528
529 ***** (129/280) *****
530 Search({'activation': 'sigmoid', 'optimizer': 'Nadam',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
   25})
531 SCORE: 0.49257 at epoch 16
532
533 ***** (130/280) *****
534 Search({'activation': 'sigmoid', 'optimizer': 'Nadam',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
   25})
535 SCORE: 0.48018 at epoch 30
536
537 ***** (131/280) *****
538 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta',
   'dropout_rate': 0.0, 'epochs': 30,
   'batch_size': 25})
539 SCORE: 0.19078 at epoch 29
540
541 ***** (132/280) *****
542 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta',
   'dropout_rate': 0.4, 'epochs': 30,
   'batch_size': 25})
543 SCORE: 0.1888 at epoch 13
544
545 ***** (133/280) *****
546 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta',
   'dropout_rate': 0.1, 'epochs': 30,
   'batch_size': 25})
547 SCORE: 0.18979 at epoch 12
```

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548
549 ***** (134/280) *****
550 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
551 SCORE: 0.1888 at epoch 13
552
553 ***** (135/280) *****
554 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
555 SCORE: 0.1893 at epoch 30
556
557 ***** (136/280) *****
558 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
559 SCORE: 0.1888 at epoch 13
560
561 ***** (137/280) *****
562 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
563 SCORE: 0.19078 at epoch 13
564
565 ***** (138/280) *****
566 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
567 Restoring model weights from the end of the best epoch: 18.
568 Epoch 28: early stopping
569 SCORE: 0.1888 at epoch 14
570
571 ***** (139/280) *****
572 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
573 Restoring model weights from the end of the best epoch: 19.
574 Epoch 29: early stopping
```

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575 SCORE: 0.1888 at epoch 15
576
577 ***** (140/280) *****
578 Search({'activation': 'sigmoid', 'optimizer': 'Adadelta', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
579 SCORE: 0.1888 at epoch 18
580
581 ***** (141/280) *****
582 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
583 SCORE: 0.61695 at epoch 25
584
585 ***** (142/280) *****
586 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
587 SCORE: 0.60803 at epoch 17
588
589 ***** (143/280) *****
590 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
591 SCORE: 0.62339 at epoch 5
592
593 ***** (144/280) *****
594 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
595 SCORE: 0.61843 at epoch 26
596
597 ***** (145/280) *****
598 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
599 SCORE: 0.611 at epoch 26
600
601 ***** (146/280) *****
602 Search({'activation': 'linear', 'optimizer': 'Adam', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
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602 25})
603 SCORE: 0.61199 at epoch 25
604
605 ***** (147/280) *****
606 Search({'activation': 'linear', 'optimizer': 'Adam',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
607 SCORE: 0.60704 at epoch 6
608
609 ***** (148/280) *****
610 Search({'activation': 'linear', 'optimizer': 'Adam',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
611 SCORE: 0.60258 at epoch 6
612
613 ***** (149/280) *****
614 Search({'activation': 'linear', 'optimizer': 'Adam',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
615 SCORE: 0.5778 at epoch 20
616
617 ***** (150/280) *****
618 Search({'activation': 'linear', 'optimizer': 'Adam',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
619 Restoring model weights from the end of the best
epoch: 19.
620 Epoch 29: early stopping
621 SCORE: 0.54509 at epoch 16
622
623 ***** (151/280) *****
624 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
625 SCORE: 0.59267 at epoch 30
626
627 ***** (152/280) *****
628 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
25})
629 SCORE: 0.60605 at epoch 30
```

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630
631 ***** (153/280) *****
632 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
25})
633 SCORE: 0.59713 at epoch 30
634
635 ***** (154/280) *****
636 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
25})
637 SCORE: 0.61447 at epoch 30
638
639 ***** (155/280) *****
640 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
25})
641 SCORE: 0.57631 at epoch 25
642
643 ***** (156/280) *****
644 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
25})
645 SCORE: 0.58474 at epoch 30
646
647 ***** (157/280) *****
648 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
25})
649 SCORE: 0.56541 at epoch 20
650
651 ***** (158/280) *****
652 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
25})
653 SCORE: 0.59514 at epoch 19
654
655 ***** (159/280) *****
656 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
25})
```

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657 SCORE: 0.54807 at epoch 19
658
659 ***** (160/280) *****
660 Search({'activation': 'linear', 'optimizer': 'SGD',
   'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
25})
661 SCORE: 0.56838 at epoch 26
662
663 ***** (161/280) *****
664 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
25})
665 SCORE: 0.62042 at epoch 26
666
667 ***** (162/280) *****
668 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
25})
669 SCORE: 0.60654 at epoch 19
670
671 ***** (163/280) *****
672 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
25})
673 SCORE: 0.62042 at epoch 26
674
675 ***** (164/280) *****
676 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
25})
677 SCORE: 0.61843 at epoch 20
678
679 ***** (165/280) *****
680 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
25})
681 SCORE: 0.60753 at epoch 20
682
683 ***** (166/280) *****
684 Search({'activation': 'linear', 'optimizer': 'Adamax',
   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
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684 25})  
685 SCORE: 0.6224 at epoch 24  
686  
687 ***** (167/280) *****  
688 Search({'activation': 'linear', 'optimizer': 'Adamax',  
       'dropout_rate': 0.6, 'epochs': 30, 'batch_size':  
       25})  
689 SCORE: 0.61943 at epoch 24  
690  
691 ***** (168/280) *****  
692 Search({'activation': 'linear', 'optimizer': 'Adamax',  
       'dropout_rate': 0.7, 'epochs': 30, 'batch_size':  
       25})  
693 SCORE: 0.61497 at epoch 19  
694  
695 ***** (169/280) *****  
696 Search({'activation': 'linear', 'optimizer': 'Adamax',  
       'dropout_rate': 0.8, 'epochs': 30, 'batch_size':  
       25})  
697 SCORE: 0.62141 at epoch 30  
698  
699 ***** (170/280) *****  
700 Search({'activation': 'linear', 'optimizer': 'Adamax',  
       'dropout_rate': 0.9, 'epochs': 30, 'batch_size':  
       25})  
701 SCORE: 0.59167 at epoch 29  
702  
703 ***** (171/280) *****  
704 Search({'activation': 'linear', 'optimizer': 'RMSprop',  
       'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})  
705 Restoring model weights from the end of the best  
epoch: 10.  
706 Epoch 20: early stopping  
707 SCORE: 0.60654 at epoch 10  
708  
709 ***** (172/280) *****  
710 Search({'activation': 'linear', 'optimizer': 'RMSprop',  
       'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})  
711 Restoring model weights from the end of the best
```

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711 epoch: 16.  
712 Epoch 26: early stopping  
713 SCORE: 0.57483 at epoch 14  
714  
715 ***** (173/280) *****  
716 Search({'activation': 'linear', 'optimizer': '  
    RMSprop', 'dropout_rate': 0.1, 'epochs': 30, '  
    batch_size': 25})  
717 Restoring model weights from the end of the best  
epoch: 16.  
718 Epoch 26: early stopping  
719 SCORE: 0.61199 at epoch 12  
720  
721 ***** (174/280) *****  
722 Search({'activation': 'linear', 'optimizer': '  
    RMSprop', 'dropout_rate': 0.3, 'epochs': 30, '  
    batch_size': 25})  
723 Restoring model weights from the end of the best  
epoch: 16.  
724 Epoch 26: early stopping  
725 SCORE: 0.61794 at epoch 10  
726  
727 ***** (175/280) *****  
728 Search({'activation': 'linear', 'optimizer': '  
    RMSprop', 'dropout_rate': 0.2, 'epochs': 30, '  
    batch_size': 25})  
729 Restoring model weights from the end of the best  
epoch: 16.  
730 Epoch 26: early stopping  
731 SCORE: 0.61695 at epoch 10  
732  
733 ***** (176/280) *****  
734 Search({'activation': 'linear', 'optimizer': '  
    RMSprop', 'dropout_rate': 0.5, 'epochs': 30, '  
    batch_size': 25})  
735 Restoring model weights from the end of the best  
epoch: 16.  
736 Epoch 26: early stopping  
737 SCORE: 0.59861 at epoch 25  
738  
739 ***** (177/280) *****
```

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740 Search({'activation': 'linear', 'optimizer': 'RMSprop', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
741 Restoring model weights from the end of the best epoch: 16.
742 Epoch 26: early stopping
743 SCORE: 0.59118 at epoch 25
744
745 ***** (178/280) *****
746 Search({'activation': 'linear', 'optimizer': 'RMSprop', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
747 Restoring model weights from the end of the best epoch: 16.
748 Epoch 26: early stopping
749 SCORE: 0.58969 at epoch 10
750
751 ***** (179/280) *****
752 Search({'activation': 'linear', 'optimizer': 'RMSprop', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
753 Restoring model weights from the end of the best epoch: 16.
754 Epoch 26: early stopping
755 SCORE: 0.59613 at epoch 20
756
757 ***** (180/280) *****
758 Search({'activation': 'linear', 'optimizer': 'RMSprop', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
759 Restoring model weights from the end of the best epoch: 10.
760 Epoch 20: early stopping
761 SCORE: 0.55897 at epoch 20
762
763 ***** (181/280) *****
764 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
765 SCORE: 0.51288 at epoch 25
766
```

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767 ***** (182/280) *****
768 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
769 SCORE: 0.51586 at epoch 30
770
771 ***** (183/280) *****
772 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
773 SCORE: 0.51536 at epoch 30
774
775 ***** (184/280) *****
776 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
777 SCORE: 0.52379 at epoch 30
778
779 ***** (185/280) *****
780 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
781 SCORE: 0.53072 at epoch 30
782
783 ***** (186/280) *****
784 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
785 SCORE: 0.50644 at epoch 30
786
787 ***** (187/280) *****
788 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
789 SCORE: 0.50842 at epoch 30
790
791 ***** (188/280) *****
792 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
793 SCORE: 0.4886 at epoch 23
```

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794
795 ***** (189/280) *****
796 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
797 SCORE: 0.48414 at epoch 30
798
799 ***** (190/280) *****
800 Search({'activation': 'linear', 'optimizer': 'Adagrad', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
801 SCORE: 0.46928 at epoch 30
802
803 ***** (191/280) *****
804 Search({'activation': 'linear', 'optimizer': 'Nadam', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
805 SCORE: 0.62587 at epoch 24
806
807 ***** (192/280) *****
808 Search({'activation': 'linear', 'optimizer': 'Nadam', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
809 SCORE: 0.61744 at epoch 16
810
811 ***** (193/280) *****
812 Search({'activation': 'linear', 'optimizer': 'Nadam', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
813 SCORE: 0.62537 at epoch 24
814
815 ***** (194/280) *****
816 Search({'activation': 'linear', 'optimizer': 'Nadam', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
817 SCORE: 0.61843 at epoch 16
818
819 ***** (195/280) *****
820 Search({'activation': 'linear', 'optimizer': 'Nadam', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
```

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821 SCORE: 0.62587 at epoch 24
822
823 ***** (196/280) *****
824 Search({'activation': 'linear', 'optimizer': 'Nadam',
     'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
     25})
825 SCORE: 0.61397 at epoch 26
826
827 ***** (197/280) *****
828 Search({'activation': 'linear', 'optimizer': 'Nadam',
     'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
     25})
829 SCORE: 0.61249 at epoch 25
830
831 ***** (198/280) *****
832 Search({'activation': 'linear', 'optimizer': 'Nadam',
     'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
     25})
833 SCORE: 0.60704 at epoch 25
834
835 ***** (199/280) *****
836 Search({'activation': 'linear', 'optimizer': 'Nadam',
     'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
     25})
837 SCORE: 0.60159 at epoch 26
838
839 ***** (200/280) *****
840 Search({'activation': 'linear', 'optimizer': 'Nadam',
     'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
     25})
841 Restoring model weights from the end of the best
epoch: 10.
842 Epoch 20: early stopping
843 SCORE: 0.50793 at epoch 16
844
845 ***** (201/280) *****
846 Search({'activation': 'linear', 'optimizer': 'Adadelta',
     'dropout_rate': 0.0, 'epochs': 30,
     'batch_size': 25})
847 SCORE: 0.33598 at epoch 30
848
```

```
849 ***** (202/280) *****
850 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
851 SCORE: 0.32507 at epoch 30
852
853 ***** (203/280) *****
854 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
855 SCORE: 0.33251 at epoch 30
856
857 ***** (204/280) *****
858 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
859 SCORE: 0.32656 at epoch 30
860
861 ***** (205/280) *****
862 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
863 SCORE: 0.32904 at epoch 30
864
865 ***** (206/280) *****
866 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
867 SCORE: 0.32309 at epoch 29
868
869 ***** (207/280) *****
870 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
871 SCORE: 0.3221 at epoch 30
872
873 ***** (208/280) *****
874 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
875 SCORE: 0.31962 at epoch 25
```

```
876
877 ***** (209/280) *****
878 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
879 SCORE: 0.31962 at epoch 30
880
881 ***** (210/280) *****
882 Search({'activation': 'linear', 'optimizer': 'Adadelta', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
883 SCORE: 0.31516 at epoch 30
884
885 ***** (211/280) *****
886 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
887 SCORE: 0.67889 at epoch 24
888
889 ***** (212/280) *****
890 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
891 SCORE: 0.65461 at epoch 30
892
893 ***** (213/280) *****
894 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
895 SCORE: 0.67939 at epoch 23
896
897 ***** (214/280) *****
898 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
899 SCORE: 0.65808 at epoch 30
900
901 ***** (215/280) *****
902 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
903 SCORE: 0.65312 at epoch 24
904
905 ***** (216/280) *****
906 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
```

```
907 SCORE: 0.64172 at epoch 25
908
909 ***** (217/280) *****
910 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
911 SCORE: 0.63677 at epoch 25
912
913 ***** (218/280) *****
914 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
915 SCORE: 0.64321 at epoch 27
916
917 ***** (219/280) *****
918 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
919 SCORE: 0.60654 at epoch 28
920
921 ***** (220/280) *****
922 Search({'activation': 'relu', 'optimizer': 'Adam', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
923 SCORE: 0.53865 at epoch 29
924
925 ***** (221/280) *****
926 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
927 SCORE: 0.60357 at epoch 30
928
929 ***** (222/280) *****
930 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
931 SCORE: 0.59415 at epoch 25
932
933 ***** (223/280) *****
934 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})
935 SCORE: 0.60753 at epoch 30
936
937 ***** (224/280) *****
938 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
939 SCORE: 0.60951 at epoch 30
```

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940
941 ***** (225/280) *****
942 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
943 SCORE: 0.54658 at epoch 22
944
945 ***** (226/280) *****
946 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
947 SCORE: 0.56541 at epoch 19
948
949 ***** (227/280) *****
950 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
951 SCORE: 0.53667 at epoch 25
952
953 ***** (228/280) *****
954 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
955 SCORE: 0.56392 at epoch 20
956
957 ***** (229/280) *****
958 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
959 SCORE: 0.5109 at epoch 13
960
961 ***** (230/280) *****
962 Search({'activation': 'relu', 'optimizer': 'SGD', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
963 SCORE: 0.49405 at epoch 20
964
965 ***** (231/280) *****
966 Search({'activation': 'relu', 'optimizer': 'Adamax', 'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})
967 SCORE: 0.63776 at epoch 17
968
969 ***** (232/280) *****
970 Search({'activation': 'relu', 'optimizer': 'Adamax', 'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})
```

```
971 SCORE: 0.64767 at epoch 27
972
973 ***** (233/280) *****
974 Search({'activation': 'relu', 'optimizer': 'Adamax',
975   'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
976   ': 25})
977 SCORE: 0.64172 at epoch 19
978
979 ***** (234/280) *****
980 Search({'activation': 'relu', 'optimizer': 'Adamax',
981   'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
982   ': 25})
983 SCORE: 0.64123 at epoch 27
984
985 ***** (235/280) *****
986 Search({'activation': 'relu', 'optimizer': 'Adamax',
987   'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
988   ': 25})
989 SCORE: 0.64569 at epoch 27
990
991 ***** (236/280) *****
992 Search({'activation': 'relu', 'optimizer': 'Adamax',
993   'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
994   ': 25})
995 SCORE: 0.63231 at epoch 24
996
997 ***** (237/280) *****
998 Search({'activation': 'relu', 'optimizer': 'Adamax',
999   'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
```

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998 ': 25})  
999 SCORE: 0.62686 at epoch 28  
1000  
1001 ***** (240/280) *****  
1002 Search({'activation': 'relu', 'optimizer': 'Adamax',  
    'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})  
1003 SCORE: 0.50694 at epoch 29  
1004  
1005 ***** (241/280) *****  
1006 Search({'activation': 'relu', 'optimizer': 'RMSprop',  
    'dropout_rate': 0.0, 'epochs': 30, 'batch_size': 25})  
1007 SCORE: 0.68434 at epoch 30  
1008  
1009 ***** (242/280) *****  
1010 Search({'activation': 'relu', 'optimizer': 'RMSprop',  
    'dropout_rate': 0.4, 'epochs': 30, 'batch_size': 25})  
1011 SCORE: 0.67691 at epoch 30  
1012  
1013 ***** (243/280) *****  
1014 Search({'activation': 'relu', 'optimizer': 'RMSprop',  
    'dropout_rate': 0.1, 'epochs': 30, 'batch_size': 25})  
1015 SCORE: 0.69078 at epoch 30  
1016  
1017 ***** (244/280) *****  
1018 Search({'activation': 'relu', 'optimizer': 'RMSprop',  
    'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})  
1019 SCORE: 0.67393 at epoch 30  
1020  
1021 ***** (245/280) *****  
1022 Search({'activation': 'relu', 'optimizer': 'RMSprop',  
    'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})  
1023 SCORE: 0.65857 at epoch 30  
1024  
1025 ***** (246/280) *****  
1026 Search({'activation': 'relu', 'optimizer': 'RMSprop'
```

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1026 ', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size  
': 25})  
1027 SCORE: 0.66006 at epoch 30  
1028  
1029 ***** (247/280) *****  
1030 Search({'activation': 'relu', 'optimizer': 'RMSprop  
, 'dropout_rate': 0.6, 'epochs': 30, 'batch_size  
': 25})  
1031 SCORE: 0.64321 at epoch 30  
1032  
1033 ***** (248/280) *****  
1034 Search({'activation': 'relu', 'optimizer': 'RMSprop  
, 'dropout_rate': 0.7, 'epochs': 30, 'batch_size  
': 25})  
1035 SCORE: 0.63627 at epoch 29  
1036  
1037 ***** (249/280) *****  
1038 Search({'activation': 'relu', 'optimizer': 'RMSprop  
, 'dropout_rate': 0.8, 'epochs': 30, 'batch_size  
': 25})  
1039 SCORE: 0.61497 at epoch 24  
1040  
1041 ***** (250/280) *****  
1042 Search({'activation': 'relu', 'optimizer': 'RMSprop  
, 'dropout_rate': 0.9, 'epochs': 30, 'batch_size  
': 25})  
1043 SCORE: 0.56194 at epoch 26  
1044  
1045 ***** (251/280) *****  
1046 Search({'activation': 'relu', 'optimizer': 'Adagrad  
, 'dropout_rate': 0.0, 'epochs': 30, 'batch_size  
': 25})  
1047 SCORE: 0.4782 at epoch 30  
1048  
1049 ***** (252/280) *****  
1050 Search({'activation': 'relu', 'optimizer': 'Adagrad  
, 'dropout_rate': 0.4, 'epochs': 30, 'batch_size  
': 25})  
1051 SCORE: 0.45144 at epoch 30  
1052  
1053 ***** (253/280) *****
```

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1054 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
    ': 25})
1055 SCORE: 0.46432 at epoch 30
1056
1057 ***** (254/280) *****
1058 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
    ': 25})
1059 SCORE: 0.45094 at epoch 30
1060
1061 ***** (255/280) *****
1062 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
    ': 25})
1063 SCORE: 0.45243 at epoch 30
1064
1065 ***** (256/280) *****
1066 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
    ': 25})
1067 SCORE: 0.45243 at epoch 30
1068
1069 ***** (257/280) *****
1070 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
    ': 25})
1071 SCORE: 0.45045 at epoch 30
1072
1073 ***** (258/280) *****
1074 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
    ': 25})
1075 SCORE: 0.44351 at epoch 30
1076
1077 ***** (259/280) *****
1078 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
    ': 25})
1079 SCORE: 0.43707 at epoch 30
1080
```

```
1081 ***** (260/280) *****
1082 Search({'activation': 'relu', 'optimizer': 'Adagrad',
    'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
    ': 25})
1083 SCORE: 0.42468 at epoch 30
1084
1085 ***** (261/280) *****
1086 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
    ': 25})
1087 SCORE: 0.68682 at epoch 30
1088
1089 ***** (262/280) *****
1090 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
    ': 25})
1091 SCORE: 0.66204 at epoch 30
1092
1093 ***** (263/280) *****
1094 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
    ': 25})
1095 SCORE: 0.67493 at epoch 30
1096
1097 ***** (264/280) *****
1098 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.3, 'epochs': 30, 'batch_size':
    ': 25})
1099 SCORE: 0.66353 at epoch 30
1100
1101 ***** (265/280) *****
1102 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.2, 'epochs': 30, 'batch_size':
    ': 25})
1103 SCORE: 0.66848 at epoch 24
1104
1105 ***** (266/280) *****
1106 Search({'activation': 'relu', 'optimizer': 'Nadam',
    'dropout_rate': 0.5, 'epochs': 30, 'batch_size':
    ': 25})
1107 SCORE: 0.6665 at epoch 30
```

```
1108
1109 ***** (267/280) *****
1110 Search({'activation': 'relu', 'optimizer': 'Nadam',
           'dropout_rate': 0.6, 'epochs': 30, 'batch_size':
           ': 25})
1111 SCORE: 0.64321 at epoch 20
1112
1113 ***** (268/280) *****
1114 Search({'activation': 'relu', 'optimizer': 'Nadam',
           'dropout_rate': 0.7, 'epochs': 30, 'batch_size':
           ': 25})
1115 SCORE: 0.63677 at epoch 22
1116
1117 ***** (269/280) *****
1118 Search({'activation': 'relu', 'optimizer': 'Nadam',
           'dropout_rate': 0.8, 'epochs': 30, 'batch_size':
           ': 25})
1119 SCORE: 0.5996 at epoch 17
1120
1121 ***** (270/280) *****
1122 Search({'activation': 'relu', 'optimizer': 'Nadam',
           'dropout_rate': 0.9, 'epochs': 30, 'batch_size':
           ': 25})
1123 SCORE: 0.52676 at epoch 29
1124
1125 ***** (271/280) *****
1126 Search({'activation': 'relu', 'optimizer': 'Adadelta',
           'dropout_rate': 0.0, 'epochs': 30, 'batch_size':
           ': 25})
1127 SCORE: 0.31615 at epoch 29
1128
1129 ***** (272/280) *****
1130 Search({'activation': 'relu', 'optimizer': 'Adadelta',
           'dropout_rate': 0.4, 'epochs': 30, 'batch_size':
           ': 25})
1131 SCORE: 0.30426 at epoch 10
1132
1133 ***** (273/280) *****
1134 Search({'activation': 'relu', 'optimizer': 'Adadelta',
           'dropout_rate': 0.1, 'epochs': 30, 'batch_size':
           ': 25})
```

```
1135 SCORE: 0.30674 at epoch 29
1136
1137 ***** (274/280) *****
1138 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.3, 'epochs': 30, 'batch_size': 25})
1139 SCORE: 0.30327 at epoch 10
1140
1141 ***** (275/280) *****
1142 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.2, 'epochs': 30, 'batch_size': 25})
1143 SCORE: 0.30872 at epoch 9
1144
1145 ***** (276/280) *****
1146 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.5, 'epochs': 30, 'batch_size': 25})
1147 SCORE: 0.31112 at epoch 11
1148
1149 ***** (277/280) *****
1150 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.6, 'epochs': 30, 'batch_size': 25})
1151 SCORE: 0.30079 at epoch 12
1152
1153 ***** (278/280) *****
1154 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.7, 'epochs': 30, 'batch_size': 25})
1155 SCORE: 0.30674 at epoch 14
1156
1157 ***** (279/280) *****
1158 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.8, 'epochs': 30, 'batch_size': 25})
1159 SCORE: 0.30327 at epoch 16
1160
1161 ***** (280/280) *****
1162 Search({'activation': 'relu', 'optimizer': 'Adadelta', 'dropout_rate': 0.9, 'epochs': 30, 'batch_size': 25})
```

```
1162 batch_size': 25})  
1163 SCORE: 0.27899 at epoch 19  
1164 Best: 0.690780 using {'activation': 'relu', '  
    optimizer': 'RMSprop', 'dropout_rate': 0.1, 'epochs'  
    ': 30, 'batch_size': 25, 'steps_per_epoch': 323}  
1165  
1166 Process finished with exit code 0  
1167
```