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1 C:\Users\vince\anaconda3\python.exe "D:/
  Documents/Choses école/UQAC/Session7/8INF436-
  Forage_de_donnees/TP3/main.py"
2 2021-04-06 11:42:35.130147: W tensorflow/
  stream_executor/platform/default/dso_loader.
  cc:60] Could not load dynamic library '
  cudart64_110.dll'; dlerror: cudart64_110.dll
  not found
3 2021-04-06 11:42:35.130329: 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 Missing values per attribute:
5 id                                0
6 gender                            0
7 age                               0
8 hypertension                      0
9 heart_disease                    0
10 ever_married                     0
11 work_type                        0
12 Residence_type                   0
13 avg_glucose_level                0
14 bmi                              0
15 smoking_status                   0
16 stroke                           0
17 dtype: int64
18 C:\Users\vince\anaconda3\lib\site-packages\
  pandas\core\indexing.py:1736:
  SettingWithCopyWarning:
19 A value is trying to be set on a copy of a
  slice from a DataFrame.
20 Try using .loc[row_indexer,col_indexer] =
  value instead
21
22 See the caveats in the documentation: https
  ://pandas.pydata.org/pandas-docs/stable/
  user_guide/indexing.html#returning-a-view-
  versus-a-copy
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23  isetter(loc, value[:, i].tolist())
24  <class 'pandas.core.frame.DataFrame'>
25  Int64Index: 4860 entries, 0 to 5109
26  Data columns (total 10 columns):
27  #      Column              Non-Null Count  Dtype
28  ---  -
29  0     gender              4860 non-null
      float64
30  1     age                 4860 non-null
      float64
31  2     hypertension        4860 non-null
      float64
32  3     heart_disease       4860 non-null
      float64
33  4     ever_married        4860 non-null
      float64
34  5     work_type           4860 non-null
      float64
35  6     Residence_type      4860 non-null
      float64
36  7     avg_glucose_level   4860 non-null
      float64
37  8     bmi                 4860 non-null
      float64
38  9     smoking_status      4860 non-null
      float64
39  dtypes: float64(10)
40  memory usage: 417.7 KB
41  None
42
43  Auto-encodeurs linéaires incomplets à 2
      couches avec sparsity et dropout de 0.05
44  La couche 1 possède 2 unités
45  2021-04-06 11:42:36.937045: I tensorflow/
      compiler/jit/xla_cpu_device.cc:41] Not
      creating XLA devices,

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45 tf_xla_enable_xla_devices not set
46 2021-04-06 11:42:36.937513: I tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:49] Successfully opened dynamic library
    nvcuda.dll
47 2021-04-06 11:42:36.958573: I tensorflow/core
    /common_runtime/gpu/gpu_device.cc:1720] Found
    device 0 with properties:
48 pciBusID: 0000:08:00.0 name: GeForce RTX 2080
    computeCapability: 7.5
49 coreClock: 1.71GHz coreCount: 46
    deviceMemorySize: 8.00GiB
    deviceMemoryBandwidth: 417.23GiB/s
50 2021-04-06 11:42:36.959343: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cudart64_110.dll'; dlerror: cudart64_110.dll
    not found
51 2021-04-06 11:42:36.959911: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cublas64_11.dll'; dlerror: cublas64_11.dll
    not found
52 2021-04-06 11:42:36.960464: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cublasLt64_11.dll'; dlerror: cublasLt64_11.
    dll not found
53 2021-04-06 11:42:36.960999: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cufft64_10.dll'; dlerror: cufft64_10.dll not
    found
54 2021-04-06 11:42:36.961545: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    curand64_10.dll'; dlerror: curand64_10.dll
    not found
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55 2021-04-06 11:42:36.962073: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cusolver64_10.dll'; dlerror: cusolver64_10.
    dll not found
56 2021-04-06 11:42:36.962895: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cusparse64_11.dll'; dlerror: cusparse64_11.
    dll not found
57 2021-04-06 11:42:36.963519: W tensorflow/
    stream_executor/platform/default/dso_loader.
    cc:60] Could not load dynamic library '
    cudnn64_8.dll'; dlerror: cudnn64_8.dll not
    found
58 2021-04-06 11:42:36.963612: W tensorflow/core
    /common_runtime/gpu/gpu_device.cc:1757]
    Cannot dlopen some GPU libraries. Please make
    sure the missing libraries mentioned above
    are installed properly if you would like to
    use GPU. Follow the guide at https://www.
    tensorflow.org/install/gpu for how to
    download and setup the required libraries for
    your platform.
59 Skipping registering GPU devices...
60 2021-04-06 11:42:36.964142: I tensorflow/core
    /platform/cpu_feature_guard.cc:142] This
    TensorFlow binary is optimized with oneAPI
    Deep Neural Network Library (oneDNN) to use
    the following CPU instructions in performance
    -critical operations:  AVX2
61 To enable them in other operations, rebuild
    TensorFlow with the appropriate compiler
    flags.
62 2021-04-06 11:42:36.964765: I tensorflow/core
    /common_runtime/gpu/gpu_device.cc:1261]
    Device interconnect StreamExecutor with
    strength 1 edge matrix:
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63 2021-04-06 11:42:36.964844: I tensorflow/
    core/common_runtime/gpu/gpu_device.cc:1267
    ]
64 2021-04-06 11:42:36.964898: I tensorflow/
    compiler/jit/xla_gpu_device.cc:99] Not
    creating XLA devices,
    tf_xla_enable_xla_devices not set
65 2021-04-06 11:42:37.031277: I tensorflow/
    compiler/mlir/mlir_graph_optimization_pass.
    cc:116] None of the MLIR optimization passes
    are enabled (registered 2)
66 23/23 [=====] - 0s
    318us/step
67 23/23 [=====] - 0s
    318us/step
68 23/23 [=====] - 0s
    318us/step
69 23/23 [=====] - 0s
    273us/step
70 23/23 [=====] - 0s
    318us/step
71 23/23 [=====] - 0s
    273us/step
72 23/23 [=====] - 0s
    318us/step
73 23/23 [=====] - 0s
    318us/step
74 23/23 [=====] - 0s
    318us/step
75 23/23 [=====] - 0s
    318us/step
76 La couche 1 possède 3 unités
77 23/23 [=====] - 0s
    273us/step
78 23/23 [=====] - 0s
    364us/step
79 23/23 [=====] - 0s
    318us/step
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80 23/23 [=====] - 0s
    318us/step
81 23/23 [=====] - 0s
    318us/step
82 23/23 [=====] - 0s
    318us/step
83 23/23 [=====] - 0s
    318us/step
84 23/23 [=====] - 0s
    364us/step
85 23/23 [=====] - 0s
    364us/step
86 23/23 [=====] - 0s
    364us/step
87 La couche 1 possède 4 unités
88 23/23 [=====] - 0s
    364us/step
89 23/23 [=====] - 0s
    364us/step
90 23/23 [=====] - 0s
    318us/step
91 23/23 [=====] - 0s
    318us/step
92 23/23 [=====] - 0s
    273us/step
93 23/23 [=====] - 0s
    318us/step
94 23/23 [=====] - 0s
    364us/step
95 23/23 [=====] - 0s
    318us/step
96 23/23 [=====] - 0s
    318us/step
97 23/23 [=====] - 0s
    318us/step
98 La couche 1 possède 5 unités
99 23/23 [=====] - 0s
    364us/step
```

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100 23/23 [=====] - 0s
    318us/step
101 23/23 [=====] - 0s
    364us/step
102 23/23 [=====] - 0s
    318us/step
103 23/23 [=====] - 0s
    273us/step
104 23/23 [=====] - 0s
    318us/step
105 23/23 [=====] - 0s
    318us/step
106 23/23 [=====] - 0s
    273us/step
107 23/23 [=====] - 0s
    318us/step
108 23/23 [=====] - 0s
    318us/step
109 La couche 1 possède 6 unités
110 23/23 [=====] - 0s
    318us/step
111 23/23 [=====] - 0s
    273us/step
112 23/23 [=====] - 0s
    318us/step
113 23/23 [=====] - 0s
    318us/step
114 23/23 [=====] - 0s
    273us/step
115 23/23 [=====] - 0s
    318us/step
116 23/23 [=====] - 0s
    318us/step
117 23/23 [=====] - 0s
    318us/step
118 23/23 [=====] - 0s
    318us/step
119 23/23 [=====] - 0s
```

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119 318us/step
120 La couche 1 possède 7 unités
121 23/23 [=====] - 0s
    318us/step
122 23/23 [=====] - 0s
    364us/step
123 23/23 [=====] - 0s
    364us/step
124 23/23 [=====] - 0s
    318us/step
125 23/23 [=====] - 0s
    318us/step
126 23/23 [=====] - 0s
    318us/step
127 23/23 [=====] - 0s
    318us/step
128 23/23 [=====] - 0s
    318us/step
129 23/23 [=====] - 0s
    318us/step
130 23/23 [=====] - 0s
    318us/step
131 La couche 1 possède 8 unités
132 23/23 [=====] - 0s
    318us/step
133 23/23 [=====] - 0s
    273us/step
134 23/23 [=====] - 0s
    318us/step
135 23/23 [=====] - 0s
    273us/step
136 23/23 [=====] - 0s
    273us/step
137 23/23 [=====] - 0s
    318us/step
138 23/23 [=====] - 0s
    273us/step
139 23/23 [=====] - 0s
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139 273us/step
140 23/23 [=====] - 0s
    273us/step
141 23/23 [=====] - 0s
    318us/step
142 Scores moyens(précision moyenne et écart-
    type) pour les auto-encodeurs linéaires
    incomplets à 2 couches avec sparsity et
    dropout de 0.05:
143 {2: (0.1679646730781464, 0.1441), 3: (0.
    18220096465211677, 0.156), 4: (0.
    1661968176143957, 0.165), 5: (0.
    16563991524203353, 0.2159), 6: (0.
    16964233877097093, 0.256), 7: (0.
    13523916115228563, 0.2687), 8: (0.
    14063593123546497, 0.264)}
144
145 Process finished with exit code 0
146
```