Instance-learning - KNN-A (Average – média das k distâncias mais próximas), KNN-M (Mediana – das k distâncias mais próximas), LOF e NNd

OBS: C – Classificador, ND – Detector de Novidades

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|  | **KNN-A** | | | | | | **KNN-M** | | | | | |
| **U** | **P** | **H** | | | **U** | | | **C** | | **H** | |
| **C** | **ND** |  | | |  | | **C** | | **ND** |
| **A** | 8 |  | 9 | 7 | 6 | | |  | |  | | 6 |
| **C** |  | 9 | 2 |  | |  | | 2 |
| **G** |  | 9 | 15 |  | |  | | 15 |
|  |  |  |  |  |  | | |  | |  | |  |
| **A** | 5 |  | 11 | 5 | 4 | | |  | |  | | 5 |
| **C** |  | 11 | 3 |  | |  | | 2 |
| **G** |  | 11 | 15 |  | |  | | 15 |
| **B** |  | 11 | 2 |  | |  | | 2 |
| **F** |  | 11 | 3 |  | |  | | 2 |
|  |  |  |  |  |  | | |  | |  | |  |
| **A** | 2 |  | 9 | 9 | 2 | | |  | |  | | 5 |
| **C** |  | 9 | 2 |  | |  | | 2 |
| **G** |  | 9 | 15 |  | |  | | 15 |
| **B** |  | 9 | 2 |  | |  | | 2 |
| **F** |  | 9 | 3 |  | |  | | 2 |
| **E** |  | 9 | 4 |  | |  | | 2 |
| **H** |  | 9 | 17 |  | |  | | 14 |
| **Hyperparameter** | | *Number of neighboors (n)* | | | | | | | | | | |
| **Range of Evaluation** | | 1-30 | | | | | | | | | | |

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|  | **LOF** | | | | | | **NNd** | | | | | |
| **U** | **P** | **H** | | | **U** | | | **C** | | **H** | |
| **C** | **ND** |  | | |  | | **C** | | **ND** |
| **A** | 3 |  |  | 12 | 1 | | |  | |  | | 1 |
| **C** |  |  | 4 |  | |  | | 1 |
| **G** |  |  | 21 |  | |  | | 2 |
|  |  |  |  |  |  | | |  | |  | |  |
| **A** | 3 |  |  | 14 | 1 | | |  | |  | | 1 |
| **C** |  |  | 4 |  | |  | | 1 |
| **G** |  |  | 19 |  | |  | | 1 |
| **B** |  |  | 11 |  | |  | | 1 |
| **F** |  |  | 9 |  | |  | | 1 |
|  |  |  |  |  |  | | |  | |  | |  |
| **A** | 3 |  |  | 10 | 1 | | |  | |  | | 1 |
| **C** |  |  | 4 |  | |  | | 1 |
| **G** |  |  | 20 |  | |  | | 1 |
| **B** |  |  | 11 |  | |  | | 1 |
| **F** |  |  | 8 |  | |  | | 1 |
| **E** |  |  | 4 |  | |  | | 1 |
| **H** |  |  | 28 |  | |  | | 1 |
| **Hyperparameter** | | *Number of neighboors (n)* | | | | | | | | | | |
| **Range of Evaluation** | | LOF: 2-30 Nnd: 1-5 | | | | | | | | | | |

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|  | **OC-SVM** | | | | | | **k-means** | | | | | |
| **U** | **P** | **H** | | | **U** | | **C** | | **H** | | |
| **C** | **ND** |  | | | **C** | | | **ND** |
| **A** |  |  |  |  | 625 | | |  |  | | | 325 |
| **C** |  |  |  |  |  | | | 425 |
| **G** |  |  |  |  |  | | | 275 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  |  | 725 | | |  |  | | | 325 |
| **C** |  |  |  |  |  | | | 425 |
| **G** |  |  |  |  |  | | | 275 |
| **B** |  |  |  |  |  | | | 750 |
| **F** |  |  |  |  |  | | | 725 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  |  | 750 | | |  |  | | | 200 |
| **C** |  |  |  |  |  | | | 425 |
| **G** |  |  |  |  |  | | | 175 |
| **B** |  |  |  |  |  | | | 750 |
| **F** |  |  |  |  |  | | | 725 |
| **E** |  |  |  |  |  | | | 750 |
| **H** |  |  |  |  |  | | | 225 |
|  |  |  |  |  |  | | |  |  | | |  |
| **Hyperparameter** | |  | | | | | **Hyperparameter** | | | | Number of centroids (nc) | |
| **Range of Evaluation** | |  | | | | | **Range of Evaluation** | | | | 25-750 , passos de 25 | |

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|  | **GM** | | | | | | **KPCA** | | | | | |
| **U** | **P** | **H** | | | **U** | | **C** | | **H** | | |
| **C** | **ND** |  | | | **C** | | | **ND** |
| **A** |  |  |  | 125free |  | | |  |  | | | 100 |
| **C** |  |  | 195free |  |  | | | 60 |
| **G** |  |  | 255diag |  |  | | | 100 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 35diag |  | | |  |  | | | 100 |
| **C** |  |  | 255free |  |  | | | 60 |
| **G** |  |  | 125diag |  |  | | | 100 |
| **B** |  |  | 85diag |  |  | | | 80 |
| **F** |  |  | 85diag |  |  | | | 50 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 35diag |  | | |  |  | | | 100 |
| **C** |  |  | 255sph |  |  | | | 60 |
| **G** |  |  | 125diag |  |  | | | 100 |
| **B** |  |  | 85diag |  |  | | | 80 |
| **F** |  |  | 85diag |  |  | | | 50 |
| **E** |  |  | 135diag |  |  | | | 100 |
| **H** |  |  | 125sph |  |  | | | 100 |
|  |  |  |  |  |  | | |  |  | | |  |
| **Hyperparameter** | | **Number of members:** (m)  **Covariance type assumed:** free (F), tied (T), diagonal (D), spherical (S) | | | | | **Hyperparameter** | | | | Explained variance: (v)  RBF Kernel weight: (0.018) | |
| **Range of Evaluation** | | 5-255, passo de 10 | | | | | **Range of Evaluation** | | | | 5-100 | |

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|  | **GM-Free** | | | | | | **GM-Tied** | | | | | |
| **U** | **P** | **H** | | | **U** | | **C** | | **H** | | |
| **C** | **ND** |  | | | **C** | | | **ND** |
| **A** |  |  |  | 125 |  | | |  |  | | | 255 |
| **C** |  |  | 195 |  |  | | | 255 |
| **G** |  |  | 75 |  |  | | | 175 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 105 |  | | |  |  | | | 255 |
| **C** |  |  | 255 |  |  | | | 245 |
| **G** |  |  | 115 |  |  | | | 205 |
| **B** |  |  | 155 |  |  | | | 235 |
| **F** |  |  | 225 |  |  | | | 155 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 105 |  | | |  |  | | | 225 |
| **C** |  |  | 255 |  |  | | | 255 |
| **G** |  |  | 75 |  |  | | | 205 |
| **B** |  |  | 215 |  |  | | | 155 |
| **F** |  |  | 135 |  |  | | | 165 |
| **E** |  |  | 255 |  |  | | | 255 |
| **H** |  |  | 245 |  |  | | | 115 |
|  |  |  |  |  |  | | |  |  | | |  |
| **Hyperparameter** | | **Number of members:** (m) | | | | | **Hyperparameter** | | | | **Number of members:** (m) | |
| **Range of Evaluation** | | 5-255, passo de 10 | | | | | **Range of Evaluation** | | | | 5-255, passo de 10 | |

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|  | **GM-diag** | | | | | | **GM-spherical** | | | | | |
| **U** | **P** | **H** | | | **U** | | **C** | | **H** | | |
| **C** | **ND** |  | | | **C** | | | **ND** |
| **A** |  |  |  | 35 |  | | |  |  | | | 145 |
| **C** |  |  | 155 |  |  | | | 255 |
| **G** |  |  | 255 |  |  | | | 15 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 35 |  | | |  |  | | | 85 |
| **C** |  |  | 145 |  |  | | | 255 |
| **G** |  |  | 125 |  |  | | | 95 |
| **B** |  |  | 85 |  |  | | | 255 |
| **F** |  |  | 85 |  |  | | | 155 |
|  |  |  |  |  |  | | |  |  | | |  |
| **A** |  |  |  | 35 |  | | |  |  | | | 155 |
| **C** |  |  | 145 |  |  | | | 255 |
| **G** |  |  | 125 |  |  | | | 115 |
| **B** |  |  | 85 |  |  | | | 225 |
| **F** |  |  | 85 |  |  | | | 125 |
| **E** |  |  | 135 |  |  | | | 255 |
| **H** |  |  | 85 |  |  | | | 125 |
|  |  |  |  |  |  | | |  |  | | |  |
| **Hyperparameter** | | **Number of members:** (m) | | | | | **Hyperparameter** | | | | **Number of members:** (m) | |
| **Range of Evaluation** | | 5-255, passo de 10 | | | | | **Range of Evaluation** | | | | 5-255, passo de 10 | |