## **Mini Projet: Machine learning**

- > Le travail est divisé en 3 parties :
  - **Application :** Structure de programme plus son exécution. (60 % de la note)
  - **Rapport :** Rédaction du rapport qui contient au moins 15 pages sans compte la page de couverture et la semaine. (20 % de la note)
  - **Présentation :** Rédiger une présentation Power point ou un autre logiciel de présentation. (20% de la note)
- ➤ Dernier délai est le 19/12/2020 à oohoo

|    | Projet                                      | Dataset   | Taille                   | Source   |
|----|---|---|--------------------------|--|
| 1  | Preprocessing<br>de grand jeu de<br>données | Telecom<br>customer<br>churn<br>prediction        | 100 var.<br>100 000 Obs. | https://www.kaggle.com/abhinav89/telecom-<br>customer                                  |
| 2  | PCA   | Telecom<br>customer<br>churn<br>prediction        | 100 var.<br>100 000 Obs. | https://www.kaggle.com/abhinav89/telecom-<br>customer                                  |
| 3  | Singular-Value<br>Decomposition             | Telecom<br>customer<br>churn<br>prediction        | 100 var.<br>100 000 Obs. | https://www.kaggle.com/abhinav89/telecom-<br>customer                                  |
| 4  | Feature<br>Selection                        | Telecom<br>customer<br>churn<br>prediction        | 100 var.<br>100 000 Obs. | https://www.kaggle.com/abhinav89/telecom-<br>customer                                  |
| 5  | Voting<br>Classifier<br>(Hard + Soft)       | Telecom<br>customer<br>churn<br>prediction        | 3 Datasets               | https://www.kaggle.com/dileep070/logistic-<br>regression-telecom-churn-prediction/data |
| 6  | Linear<br>Discriminant<br>Analysis (LDA)    | Telecom<br>customer<br>churn<br>prediction        | 100 var.<br>100 000 Obs. | https://www.kaggle.com/abhinav89/telecom-<br>customer                                  |
| 7  | Recurrent<br>neural network<br>(RNN)        | IBM HR Analytics Employee Attrition & Performance | 35 var.                  | https://www.kaggle.com/pavansubhasht/ibm-hr-analytics-attrition-dataset                |
| 8  | Recurrent<br>neural network<br>(LSTM)       | Bank<br>Turnover<br>Dataset                       | 14 Var.                  | https://www.kaggle.com/barelydedicated/bank-<br>customer-churn-modeling                |
| 9  | Reinforcement learning                      | Bank<br>Turnover<br>Dataset                       | 14 Var.                  | https://www.kaggle.com/barelydedicated/bank-<br>customer-churn-modeling                |
| 10 | Times Series                                | À votre choix                                     |                          |  |
| 11 | GMM   | À votre choix                                     |                          |  |