

Exam 1:topics

Jaime Davila

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Topics

The following is a list of the topics that will be covered in the exam:

- Data types in R
- **tidyverse**: Including plots with **ggplot**, data transformation of tibbles with **dplyr** (including joins) and pivots
- Introduction to Prediction and Classification, including testing/training, MSE, missclassification rate, KNN models, class predicted probability and Bayes' boundary
- Linear Models: Simple interpretation of coefficients in linear models and simple variable transformation. Use of the **tidymodels()** framework for running and evaluating models
- Classification: Logistic regression, multiple class classification including LDA, QDA and KNN models. Implementation and evaluation of classification models using **tidymodels**
- Cross validation: Definition and use of k -folds cross validation in the context of **tidymodels**