

CS x460
Practical Machine Learning with R
Assignment for Week 8
Due: Sunday, March 11 at **11:59 PM**
(no late submissions accepted, no exceptions)

Submit on Canvas / onlinelearning.berkeley.edu (no email submissions accepted, no exceptions)

Use the banking telemarketing dataset `bank-additional-full.csv`, (in `bank-additional-full.zip` posted on the Files/Assignment for Week 8) to build a model that determines whether a customer will subscribe to a bank term deposit (outcome variable "y") .

Use logistic regression, decision trees (with hyperparameter optimization), and random forest models to generate your results. Evaluate and compare the performance of each type of model using appropriate tools and methods (e.g., confusion matrix, ROC/AUC).

Create a reproducible .Rmd R Notebook, with your source code and answers to the questions above. Be sure to include each problem's text above in your RMarkdown document along with your solutions.

Knit your RMarkdown to HML and submit it to Canvas as a file named:
`first_name_last_name_week_8.html`. Be sure to include your name in the heading.

This assignment will be graded Credit/No Credit.