

PU5558-assessment1

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Introduction

This assessment will use the Knee Replacement CCG 2021 data set.

The first section will answer which machine learning algorithm to choose for the 3 given questions.

The second section will.for question no. ## Load necessary packages

Load chosen dataset

Dataset description

Suitable machine learning algorithm for three questions:

1. Before the operation, can we estimate the post-operative EQ5D index for a patient?
2. Before the operation, can we predict how much pain a patient will have after the operation?
3. Before the operation, can we calculate how many patients have had previous surgery?

Model building to answer chosen question

1. Data splitting
2. Selection and preprocessing of predictors
3. Model specification and training
4. Model evaluation

Limitations of machine learning model