

# STEPWISE REGRESSION

Machine learning

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Overview

# WHAT IS STEPWISE REGRESSION?

- multiple independent variables.
- the selection of independent variables is done with the help of an automatic process, which involves no human intervention.
- by observing statistical values like R-square, t-stats and AIC metric to discern significant variables.
- **Stepwise regression** basically fits the regression model by adding/dropping co-variates one at a time based on a specified criterion.
- Standard stepwise regression does two things. It adds and removes predictors as needed for each step.
  - **Forward selection** starts with most significant predictor in the model and adds variable for each step.
  - **Backward elimination** starts with all predictors in the model and removes the least significant variable for each step.