

# Logistic Regression and Regularization

## Applied Machine Learning for Educational Data Science

true

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## Contents

<b>Overview of the Logistic Regression</b>	<b>2</b>
Model Description . . . . .	2
Model Estimation . . . . .	2
<code>glm</code> function . . . . .	2
Building a Prediction Model for Recidivism . . . . .	2
Initial Data Preparation . . . . .	2
Train/Test Split . . . . .	2
Model Fitting with the <code>caret</code> package . . . . .	2
<b>Regularization in Logistic Regression</b>	<b>2</b>
Ridge Penalty . . . . .	2
Model Fitting with the <code>caret</code> package . . . . .	2
Variable Importance . . . . .	2
Lasso Penalty . . . . .	2
Model Fitting with the <code>caret</code> package . . . . .	2
Variable Importance . . . . .	2
Elastic Net . . . . .	2
Model Fitting with the <code>caret</code> package . . . . .	2
Variable Importance . . . . .	2
Using the Prediction Model for Future Observations . . . . .	2

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# Overview of the Logistic Regression

Model Description

Model Estimation

`glm` function

Building a Prediction Model for Recidivism

Initial Data Preparation

Train/Test Split

Model Fitting with the `caret` package

## Regularization in Logistic Regression

Ridge Penalty

Model Fitting with the `caret` package

Variable Importance

Lasso Penalty

Model Fitting with the `caret` package

Variable Importance

Elastic Net

Model Fitting with the `caret` package

Variable Importance

Using the Prediction Model for Future Observations