

Lesson 2:
Linear Regression

SEARCH

RESOURCES

CONCEPTS

✓ 18. Higher Dimensions

✓ 19. Exercise: Multiple Linear Regr...

✓ 20. Closed Form Solution

✓ 21. (Optional) Closed form Soluti...

✓ 22. Linear Regression Warnings

✓ 23. Polynomial Regression

✓ 24. Exercise: Polynomial Regressi...

✓ 25. Regularization

✓ 26. Exercise: Regularization

✓ 27. Exercise: Feature Scaling

✓ 28. Lesson Review

Lightbulb icon

Mentor Help

Ask a mentor on our Q&A platform

Lesson Review

In this lesson, you were introduced to linear models. Specifically, you saw:

- **Gradient descent** is a method to optimize your linear models.
- **Multiple Linear Regression** is a technique for when you are comparing m
- **Polynomial Regression** for relationships between variables that aren't line
- **Regularization** is a technique to assure that your models will not only fit th also extend to new situations.

Glossary

Key Term	Definition
Batch gradient descent	The process of repeatedly calculating errors for all points and updating weights accordingly.
Error	The vertical distance from a given point to the predictive
Feature scaling	Transforming data into a common range of values using normalizing.
Gradient descent	The reduction of the error by taking the derivative of the respect to the weights.
L1 Regularization	Absolute values of the coefficients of the model are used
L2 Regularization	Squares of the values of the coefficients of the model are regularization.
Lambda	The amount by which we punish complex models during regularization.
Learning rate	The amount by which we adjust the weights of our equal learning rate, the larger our adjustments.
Mean absolute error	The sum of the absolute value of all errors divided by the points.
Mean squared error	The sum of the square of all errors divided by the total n
Regularization	Taking into consideration the complexity of the model w regression models.
Stochastic gradient descent	The process of repeatedly calculating errors one point at weights accordingly.