# BST 219
# Core Principles of Data Science

Lecture 28: Machine Learning continued
December 12, 2024

# Recipe of the Day!

## Grinch Cookies









**Harvard Square Chocolate Tour**

# Agenda

- Announcements
  - Lab this week!

  - Homework #4 due December 16th by 11:59pm

  - Final projects due December 16th by 11:59pm

- Continue Machine Learning module
  - Random Forests
  - Regularization

## Machine Learning Glossary

### regularization

Any mechanism that reduces **overfitting**. Popular types of regularization include:

- **$L_1$ regularization**

- **$L_2$ regularization**

- **dropout regularization**

- **early stopping** (this is not a formal regularization method, but can effectively limit overfitting)

Regularization can also be defined as the penalty on a model's complexity.