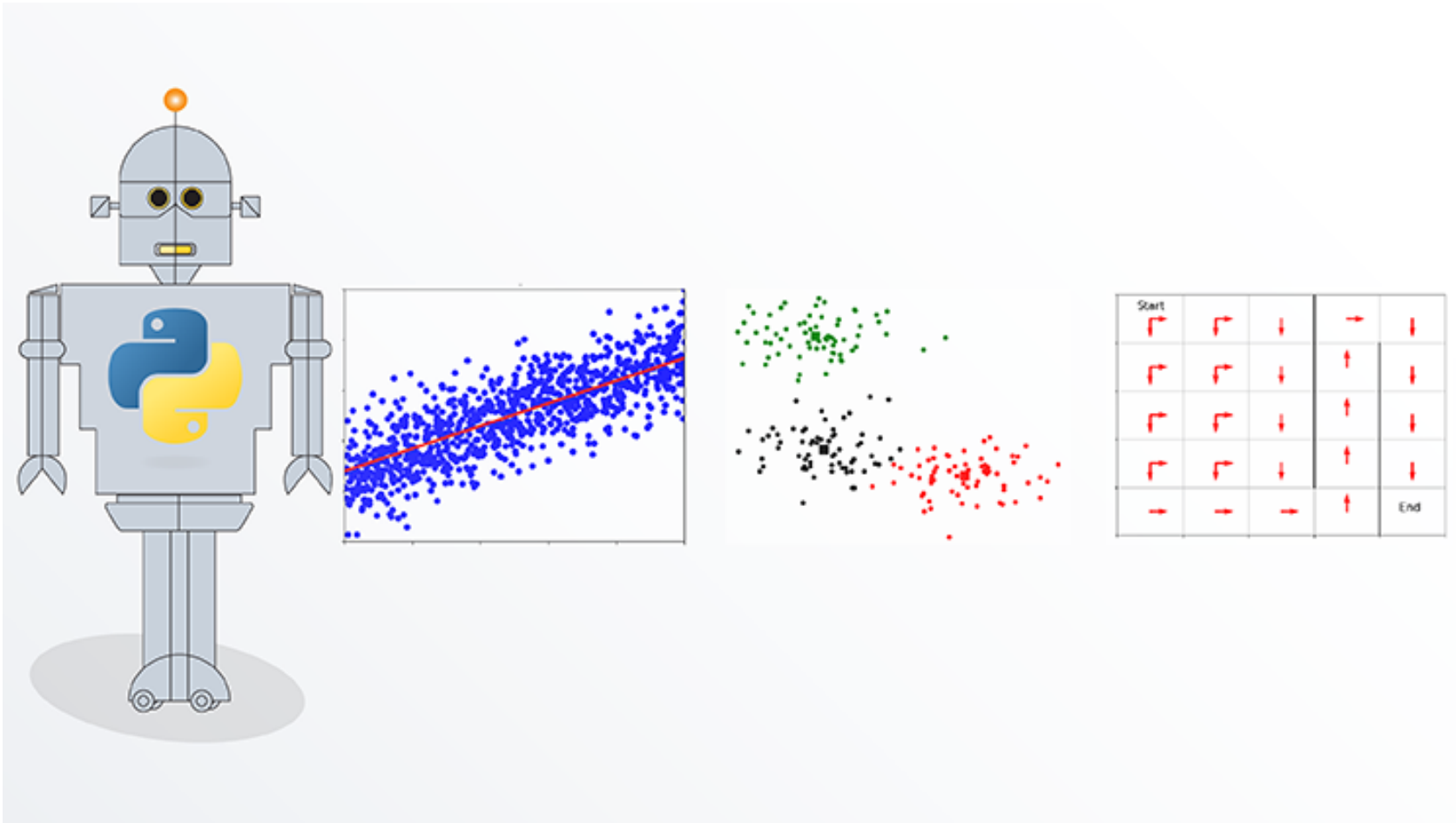


What is Machine Learning?

Chapter 1: Introduction and Course Resources



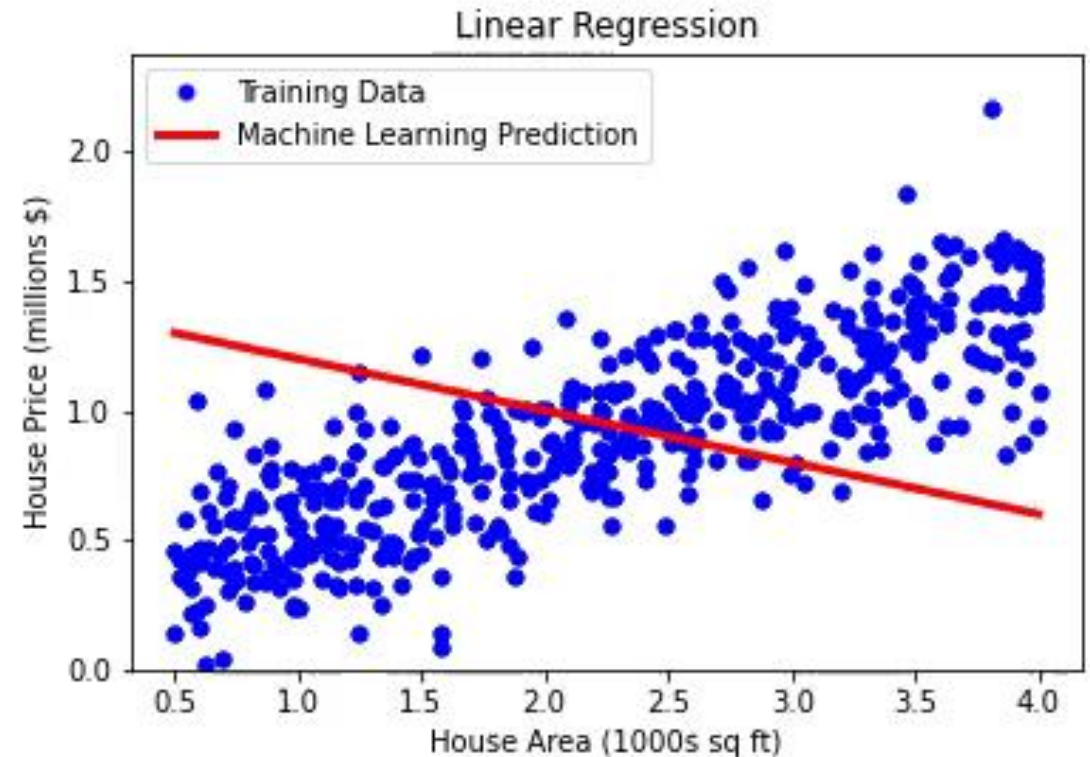
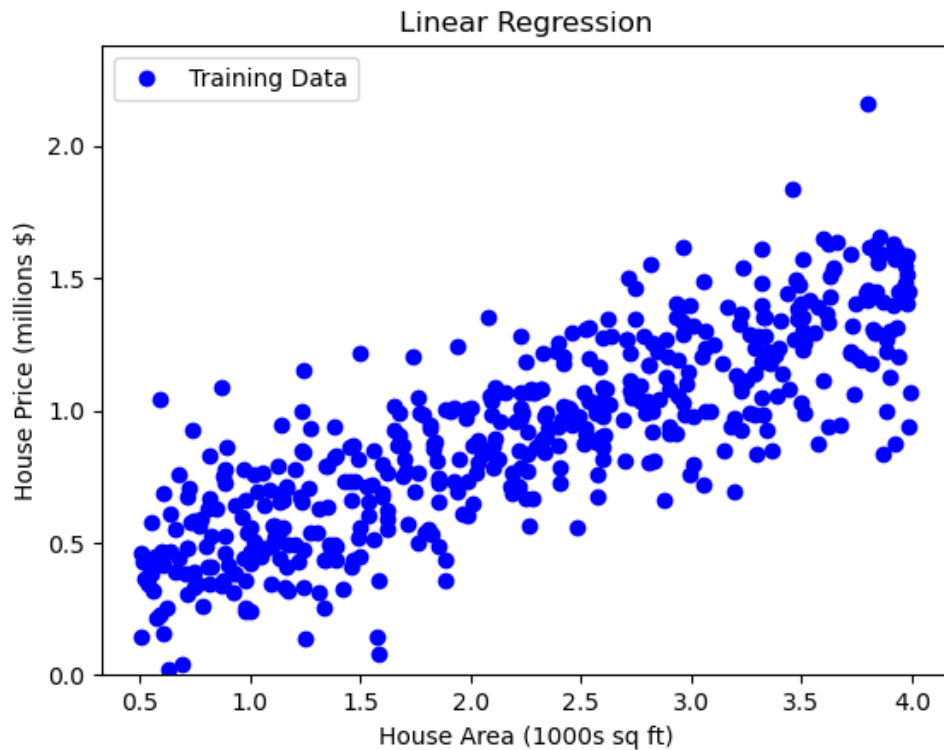
Machine Learning

Three broad areas:

- Supervised Machine Learning
 - Informally: Learn function that “fits” the data, then use for prediction
 - Applications: predicting house prices, spam filtering, image classification, language translation
- Unsupervised Machine Learning
 - Informally: Learn patterns in data
 - Applications: finding clusters, data mining, anomaly detection
- Reinforcement Learning
 - Informally: Learn strategies to maximize reward
 - Applications: game playing (tic-tac-toe, checkers, chess, go), industrial control

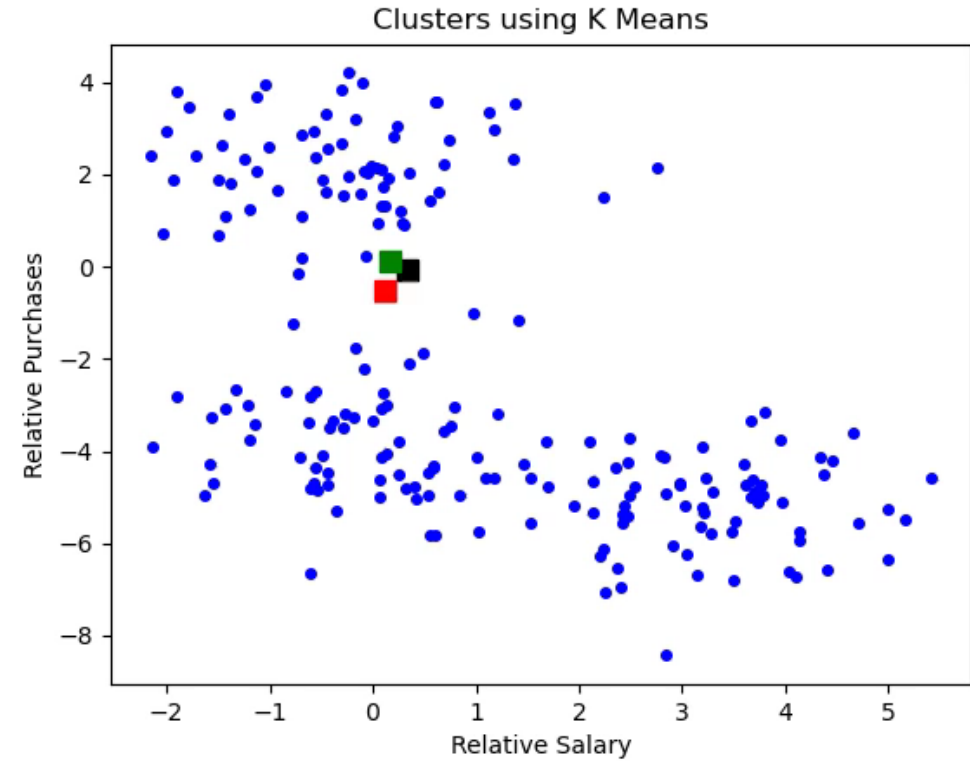
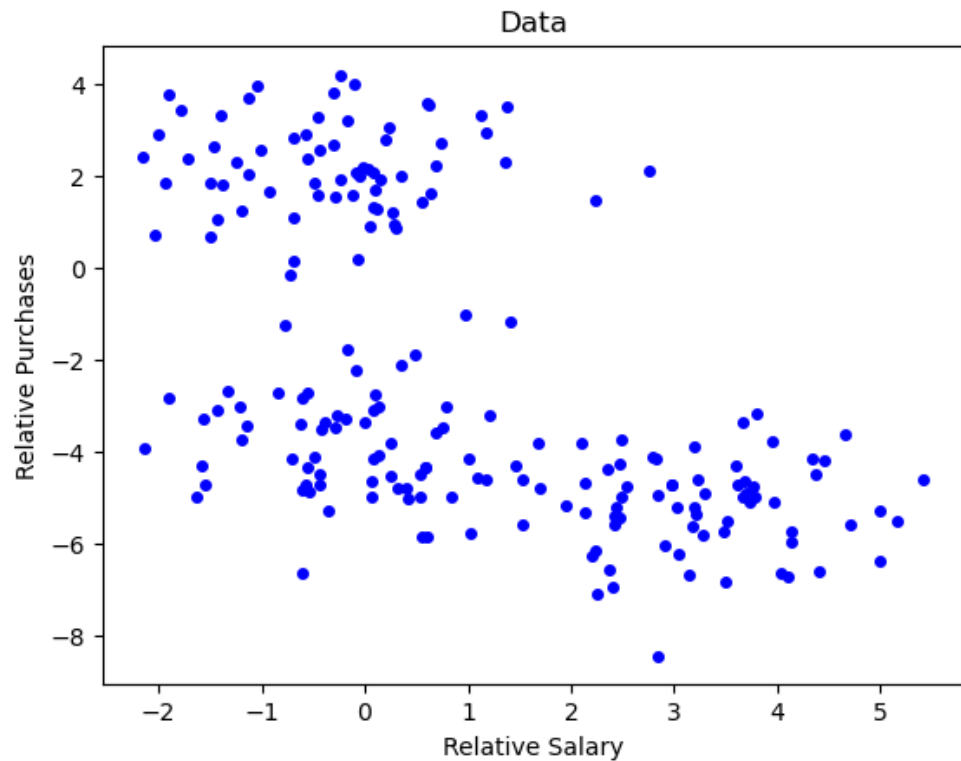
Supervised Learning: Example

- Example: Linear Regression for house price prediction



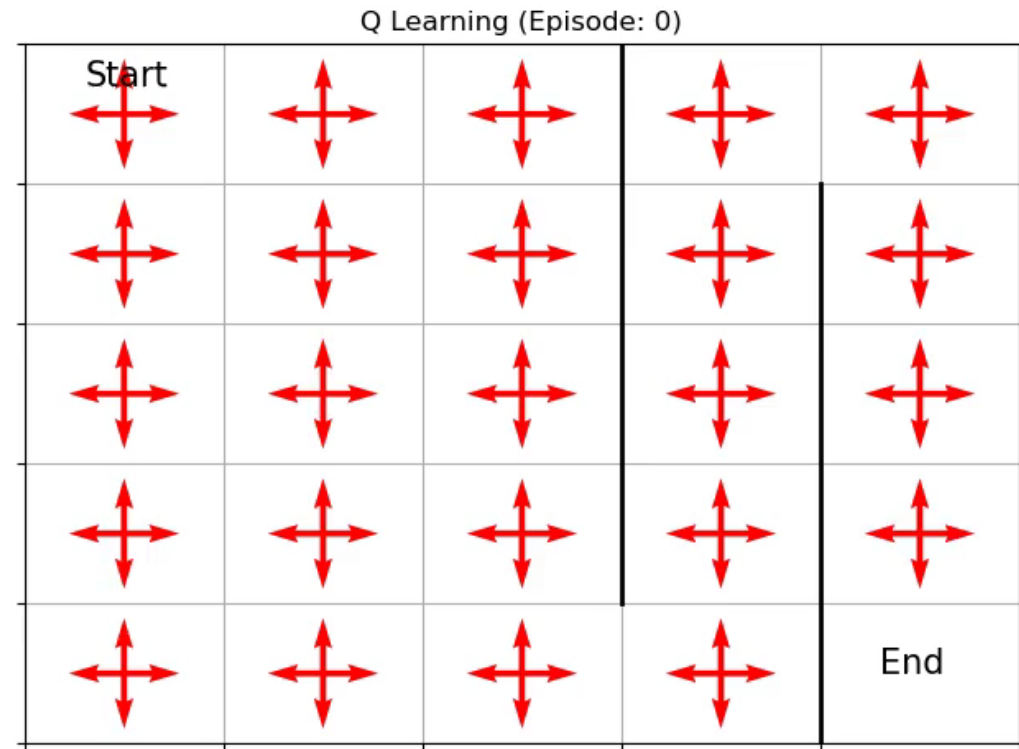
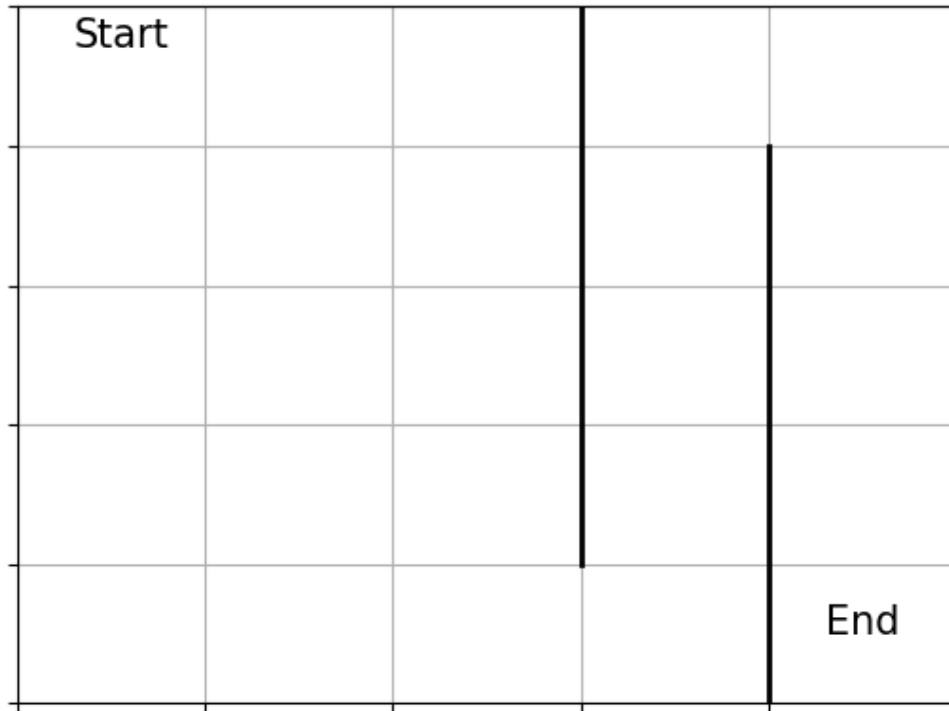
Unsupervised Learning: Example

- Example: Finding clusters in customer data using K means algorithm



Reinforcement Learning: Example

- Example: Find strategy to go through maze as quickly as possible using Q – Learning algorithm



What is in this Course?

This short course contains:

- A (mostly) non-technical overview of machine learning algorithms and the problems they are used to solve with examples using pictures, plots, and animations
- Demos of machine learning code in Python
- A list of resources for further study of machine learning

Course Outline

Chapter 1: Introduction and Course Resources

Chapter 2: Supervised Machine Learning

Chapter 3: Unsupervised Machine Learning

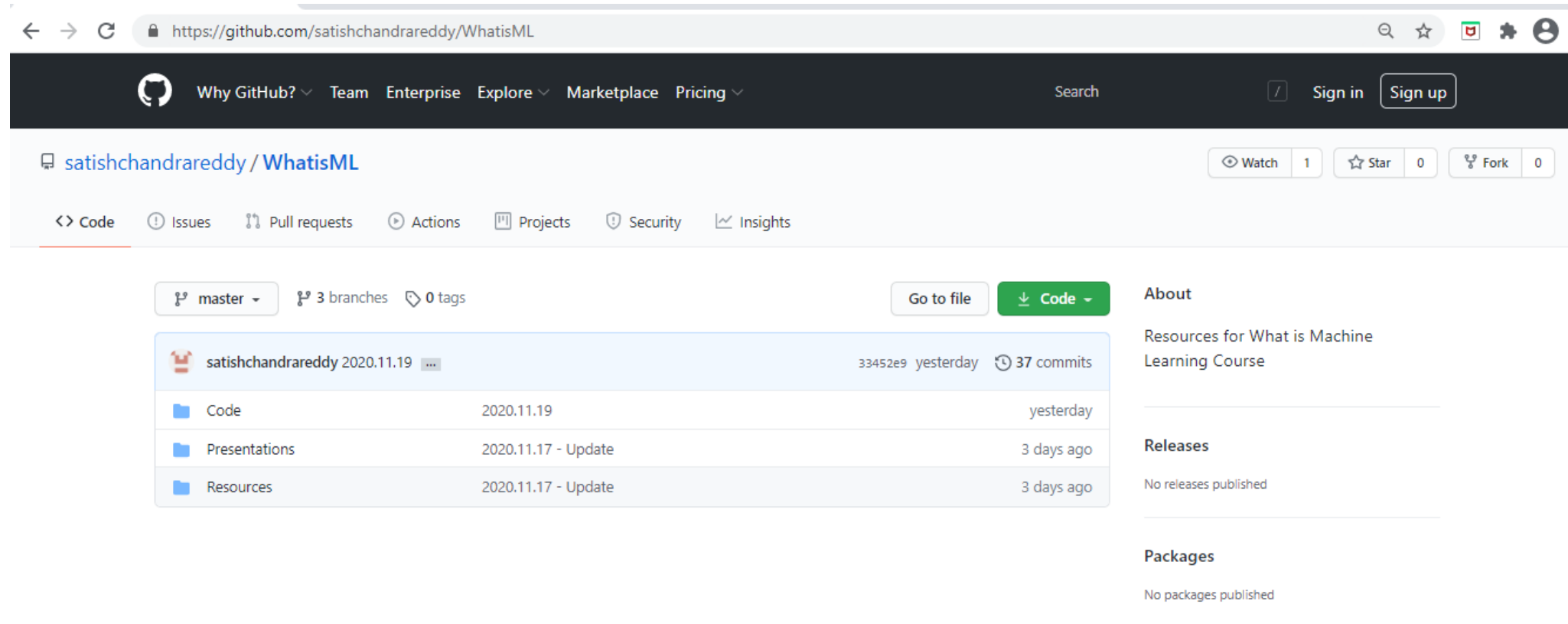
Chapter 4: Reinforcement Learning

Chapter 5: Demo of Python Codes

Chapter 6: Concluding Remarks and Useful Resources

Course Resources

Located at: <https://github.com/satishchandrareddy/WhatisML>



The screenshot shows the GitHub repository page for `satishchandrareddy/WhatisML`. The page includes a navigation bar with links to Why GitHub?, Team, Enterprise, Explore, Marketplace, and Pricing. The repository name is displayed as `satishchandrareddy/WhatisML` with 1 Watch, 0 Stars, and 0 Forks. The repository is currently on the `master` branch, with 3 branches and 0 tags. The commit history shows a commit by `satishchandrareddy` on 2020.11.19, with 37 commits in total. The repository contains three folders: `Code` (updated yesterday), `Presentations` (updated 3 days ago), and `Resources` (updated 3 days ago). The right sidebar contains sections for About, Releases, and Packages, all of which are currently empty.

Navigation: Why GitHub? Team Enterprise Explore Marketplace Pricing Search Sign in Sign up

Repository: satishchandrareddy / WhatisML

Actions: Watch (1) Star (0) Fork (0)

Navigation: <> Code Issues Pull requests Actions Projects Security Insights

Branches: master 3 branches 0 tags

Buttons: Go to file Code

Commit: satishchandrareddy 2020.11.19 33452e9 yesterday 37 commits

File	Commit	Time
Code	2020.11.19	yesterday
Presentations	2020.11.17 - Update	3 days ago
Resources	2020.11.17 - Update	3 days ago

About: Resources for What is Machine Learning Course

Releases: No releases published

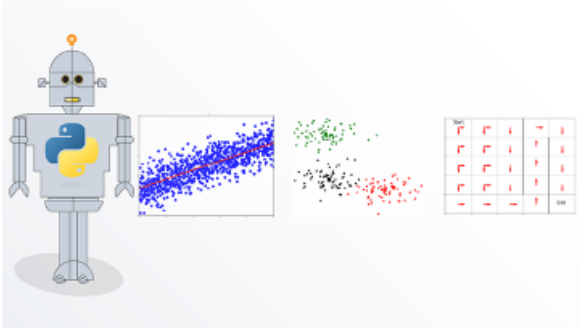
Packages: No packages published

Resources File

WhatisML\Resources\WhatisML_Resources_v1.0.pdf

Course: What is Machine Learning?

Useful Machine Learning Resources



Chapter 1: Introduction

Wikipedia page for Machine Learning:

https://en.wikipedia.org/wiki/Machine_learning

Course Github site:

<https://github.com/satishchandrareddy/WhatisML>

Chapter 2: Supervised Learning

Wikipedia page for Supervised Learning:

https://en.wikipedia.org/wiki/Supervised_learning