

# **Unit 1: What is data science?**

## **Machine learning**

Lesson 7

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# Lesson overview

## Objectives

- Understand what machine learning is
- Understand how machine learning fits into data science

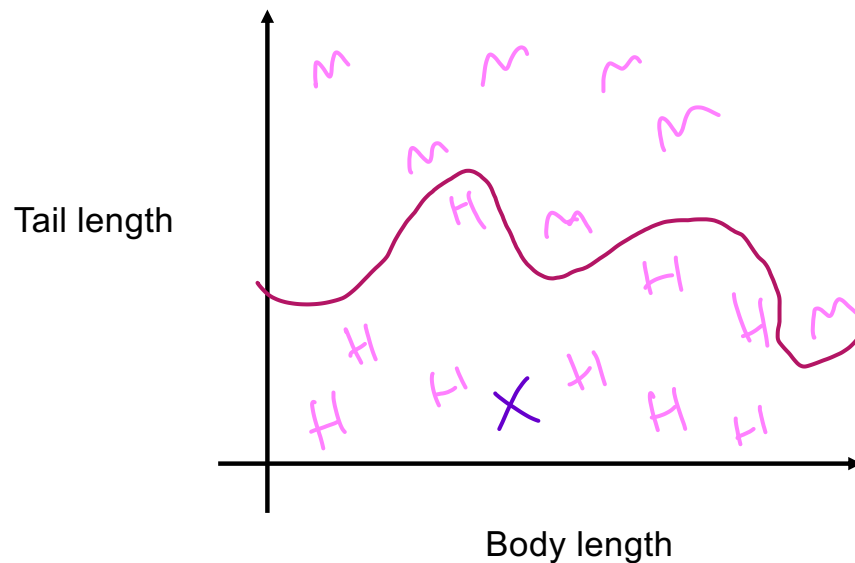
## Outline

- Separating mice and hamsters
- Neural networks in 2 minutes
- Machine learning as a data annotation tool
- Why machine learning needs data science

# Mouse or hamster?



# A mouse-hamster classifier



x is probably a hamster

Machine learning wants to make <sup>4</sup>  
lines to separate things and decide  
what things are based on where they fall

# ML & data annotation uses

big data science  
use for ML

- How positive tweets are about Donald Trump
- Articles that talk about climate change
- Pictures that are selfies
- Videos that depict violence

# Why ML needs data science

Does your ML classifier *really* work?

*Use data science  
to prove ML  
Classifier works*



# Lesson wrap-up

## Takeaways

- Machine learning is all about drawing separating curves lines
- ML can be useful for data annotation
- Anyone who wants to advance ML needs to do data science

## Up next

- The other essential side of data science