Unit 1: What is data science?

Lesson 3

Derek Ruths

Overview of unit

- What is data science?
- What is data?
- Data collection and curation
- What is data analytics?
 - How does data analytics fit into data science?
- What is machine learning?
 - How does machine learning fit into data science?

Lesson overview

Objectives

- Review unit goals
- Define data science
- Define data science process

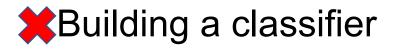
Outline

- Overview of unit
- Definition of data science
- Data science project phases
- Example

Definition of data science

Data science is about the **innovative** use of data to understand something.

Question -> insight





XCollecting data

Data science project phases



Data science project phases

rew year

One or more of the phases below should be "messy." E.g.,

- Question hasn't been asked before (using data)
- Type of data is new
- Unclear how to annotate it
- Analysis statistics & visuals are unclear

Question definition



Data collection



Data annotation



Data analysis



Interpretation



Communication

Introduction to Data Science
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Lesson wrap-up

Takeaways

- · Data science is about innovation and understanding
- Data science projects have a structure

Up next

What is data?