Presented by Raegan Allums & Joe Comeaux
April 19, 2022

Welcome to Data Science!

University of Cambridge
Institute of Continuing Education

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Agenda

- Welcome!
- About Flatiron School
- Student Expectations
- Course Overview & Structure
- Icebreaker
- Getting Started

About Flatiron School

Mission
Enable the pursuit of a better life through education

What we teach
Data Science
Software Engineering
Cybersecurity
Product Design

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Introductions

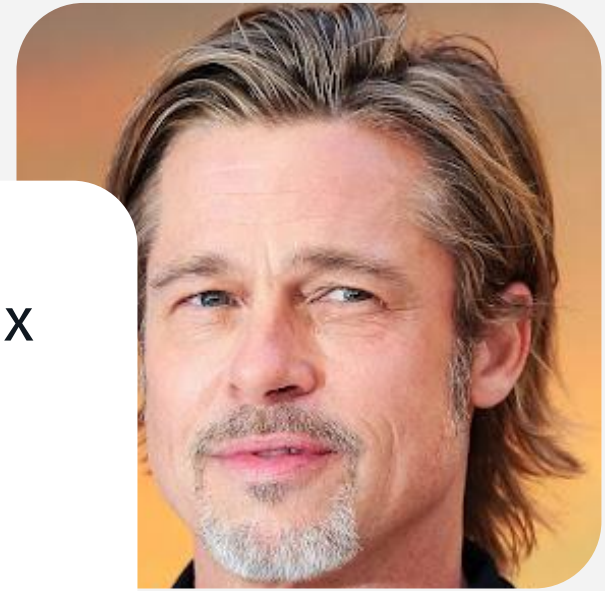
Raegan Allums

Enterprise Program Manager

👋 Howdy!

- Based in Austin, TX (CDT)
- Have been with Flatiron School for 3.5yrs
- Meet my dog, Scout!

Introductions



Joe Comeaux

Lead Instructor

👋 Hello!

- Based in Denver, CO (MDT)
- Meteorologist
  - Messy Data
- Instructor
  - College
  - High School
  - Grad School
  - Pre-School

Introductions

Fun Fact:

- I run a non-profit to get kids excited about science and coding!

Student & Program Expectations

We want to ensure that you have an excellent experience over the next 10 weeks–here are some resources to help.

Grading & Attendance

- Students will be graded based on the following breakdown:
  - 50% Final Project
  - 30% Course Material Completion
  - 20% Lecture Participation
- Following the end of the course, Cambridge ICE will provide a ‘Certificate of Completion’ to those who have successfully completed and passed the course

Response Time

We will do our best to respond to Slack and email ASAP–please keep in mind that we’re not in BST

Surveys & Pulse Checks

We will be sending out weekly pulse checks and surveys throughout the program. Completion is encouraged and expected.

Additional Resources

- Code of Conduct
- Weekly Course Cadence

Overview

Week 1 Bash & Jupyter	**Weeks 6-7** Pandas
Week 2 Git	**Week 8** Matplotlib & Seaborn
Weeks 3-4 Python	**Week 9** SQL
Week 5 NumPy	**Week 10** Student Presentations

Class Structure, Weeks 2-9

- Review of last week's exercises/content (15min)
- Lecture (60-75min)
- *Break (10min)*
- In-class exercises in small groups (30min)
- Recap/questions (20min)

Week 1 Agenda

- Welcome to Flatiron School + Course Information (10min)
- Meet Your Neighbor (10min)
- What is Data Science? (10min)
- System Set-up: Anaconda and Git + Canvas Overview (30min)
- *Break (10min)*
- Intro to the Terminal and Bash (30min)
- Questions/Assignment of Suggested Exercises (20min)

What is Data Science?

"Data science is an interdisciplinary field that uses scientific methods, processes, algorithms, and systems to extract knowledge and insights from data in various forms, both structured and unstructured."

-University of Virginia

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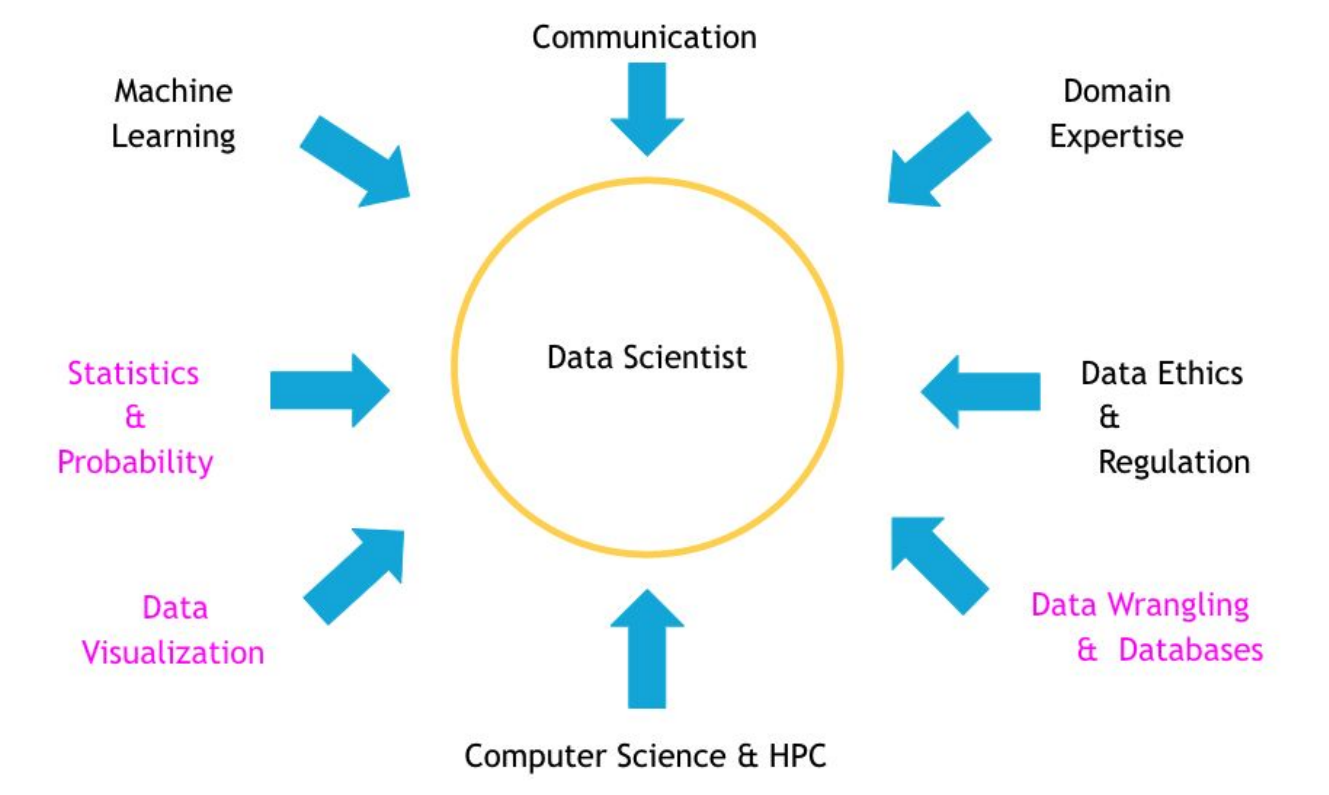
I WANT ANSWERS
CALL THE DATA SCIENTIST.
RIGHT NOW!

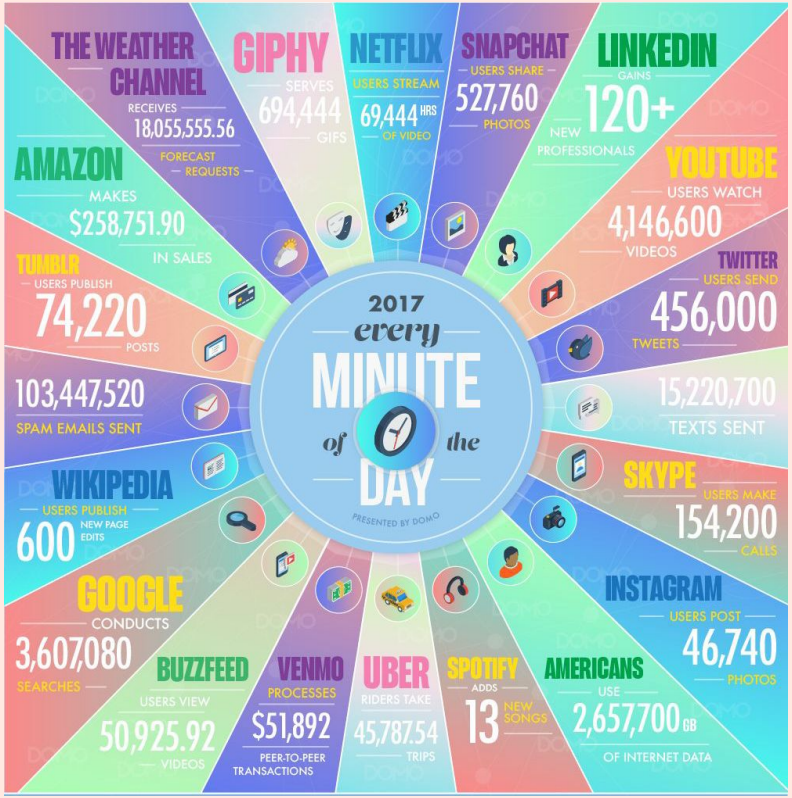
Interdisciplinary Field



Data

- Multiple definitions
- Many online definitions
- **Quantities, characters, symbols, or media** on which **operations** are performed by a computer (or human) to gain **understanding** of a problem

What is data?



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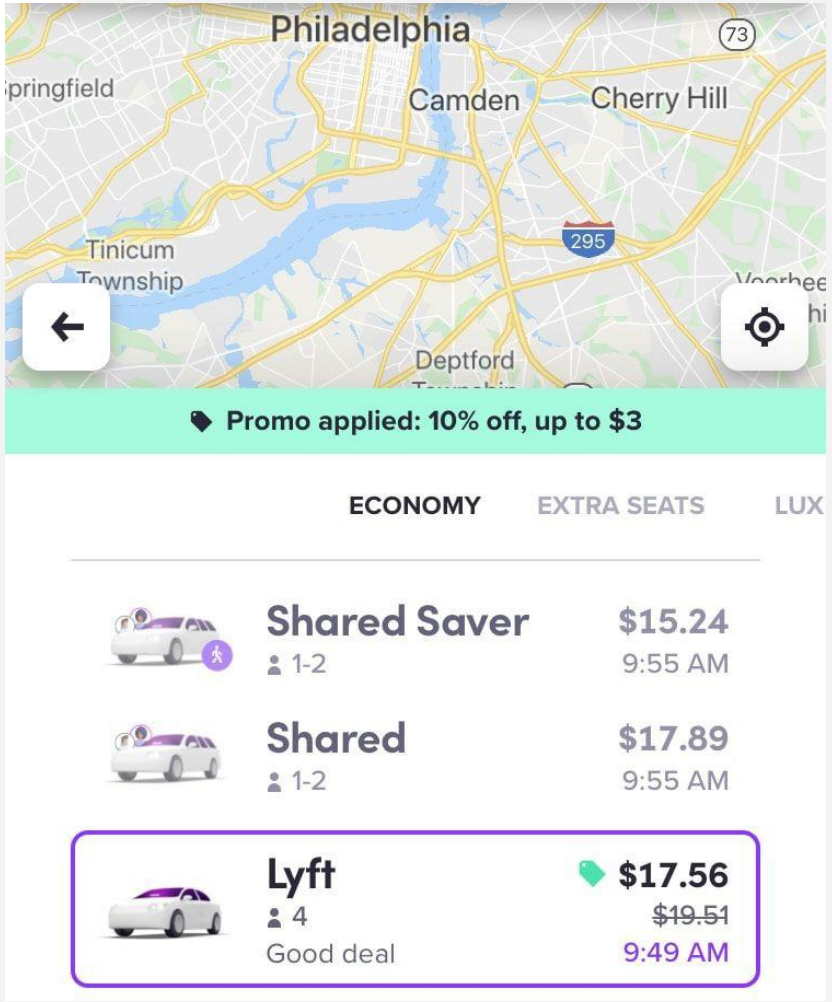
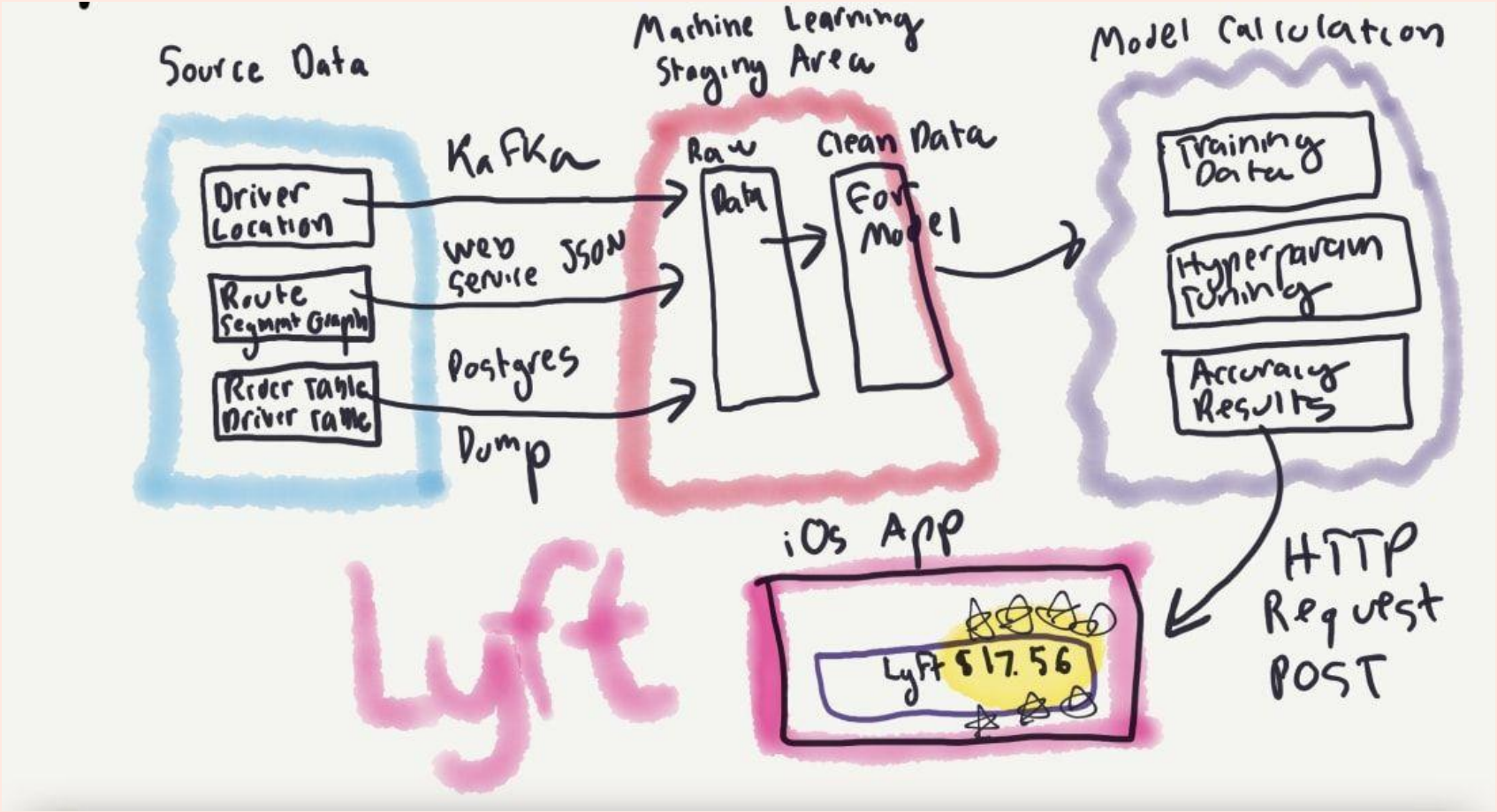
Business Example

What needs to happen for the $17.56 price to appear to the Lyft user?

Source: Vicki Boykis



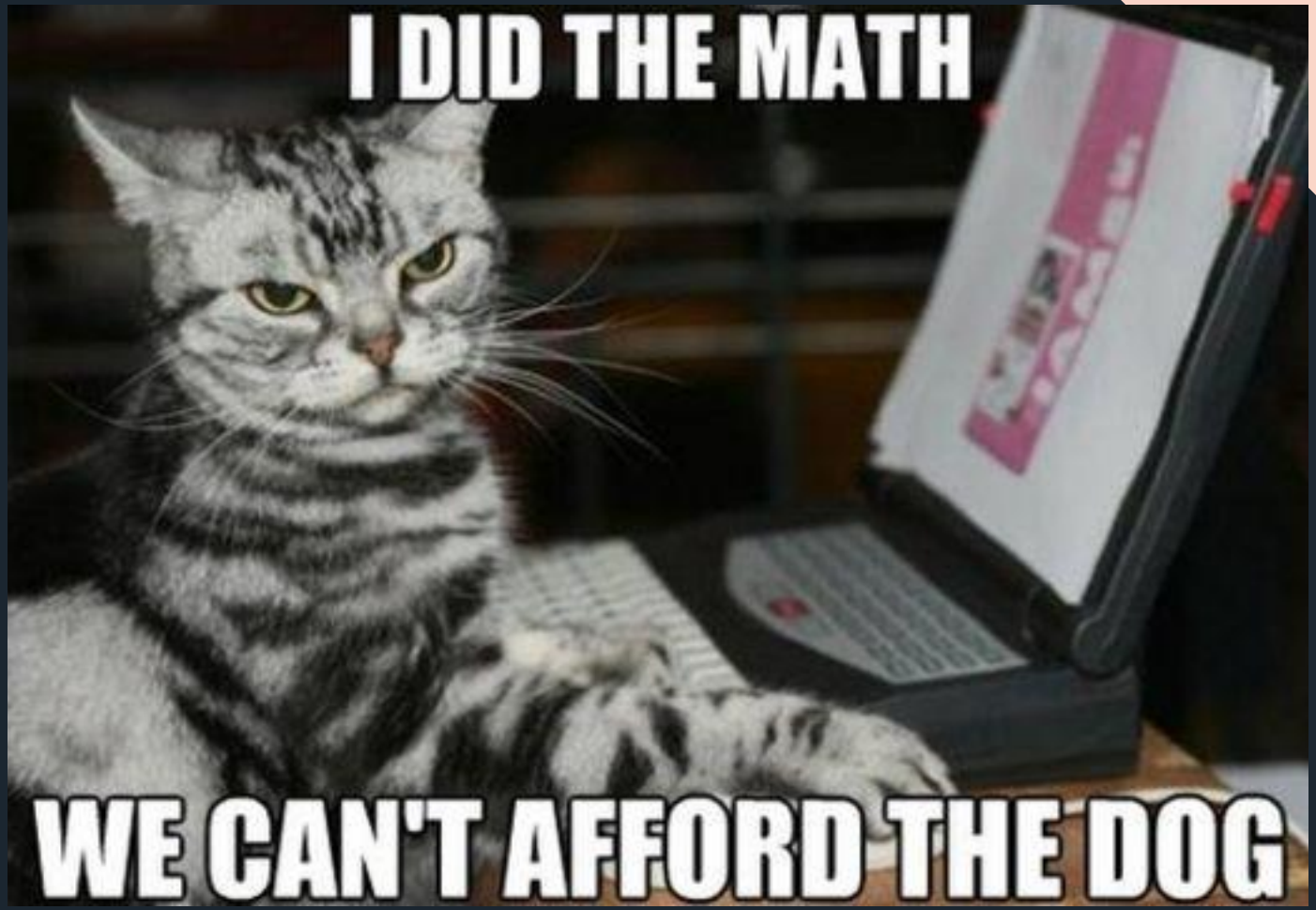


Source: Vicki Boykis

Our Focus for this Course: **Data Analysis**

"*Procedures* for **analyzing** data, *techniques* for **interpreting** the results of such procedures, *ways* of **planning** the **gathering** of data to make its analysis **easier**, more precise or more **accurate**, and all the *machinery* and *results* of (mathematical) **statistics** which apply to **analyzing data**."

-John Tukey, *The Future of Data Analysis*, 1961


I DID THE MATH
WE CAN'T AFFORD THE DOG

A Common Goal of Analysis: Visualization

Source: boostlabs.com

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I DON'T ALWAYS GRAPH MY DATA...
OH WAIT, YES I DO!
memegenerator.net