

Data Science in Practice: Personalized Content Recommendations



Andrew Castillo

Introduction – Andrew Castillo

Data Scientist, CoverMyMeds/McKesson

- **PhD Mathematics – Ohio State University**
- **BS, MS Mathematics – Texas A&M University**

I'm currently an active data scientist at a healthcare technology company focused on the prior authorization process. Much of my work has been based in the NLP realm with a focus in unsupervised techniques and statistical models to describe question set behavior and anomaly detection.



Why are analytics like these interesting?

- Descriptive analytics allow for businesses to make data driven decisions about existing products but also emerging products!
- These analytics quantify massive pools of data in a way so as to identify patterns. These patterns relate to customer behavior, which gives companies a better understanding of their customers.
 - Companies like Amazon, Netflix, Disney/Hulu can analyze what viewers are currently watching and make new shows related to those viewers.
- Netflix has done analytics similar to this to create new shows such as House of Cards!!
 - Netflix identified that the British version of House of Cards was watched by a lot of subscribers.
 - Those members who watched the British version of House of Cards also seemed to favor movies starring Kevin Spacey.

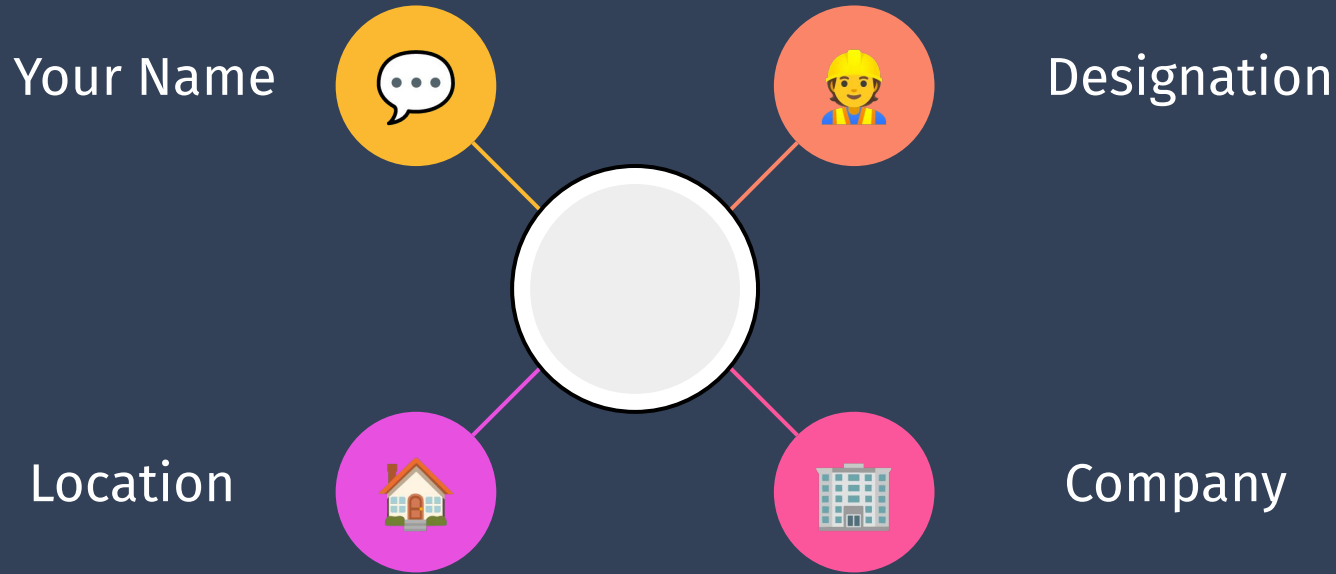
Quick Agenda For Today:

- Analyze movie and TV show data from the POV of a data scientist exploring said data for the first time. We will explore relevant features and take a deep dive into associated analytics.
- Understand the basic Python fundamentals of data manipulation, processing, and exploring.
- We'll explore various aspects of the data, such as genres, duration, ratings and their interrelations. This is known as the Exploratory Data Analysis.
- We'll also use basic LLM techniques to dive into text data to explore various topics that occur in the documents and create personalized movie recommendations from user queries.

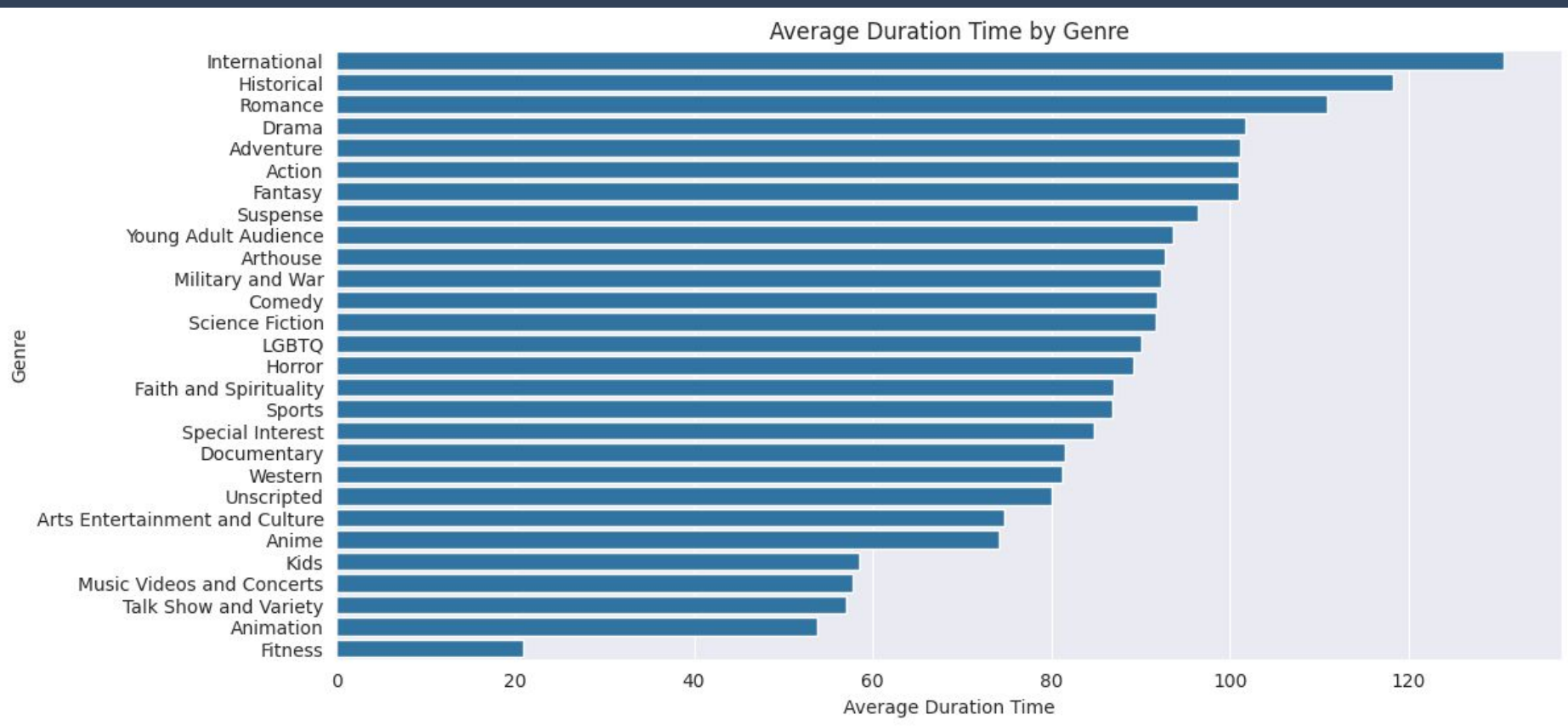
Class Expectations

- Please ask any and all questions that you have.
- Feel free to interrupt me if you have a question or comment about something I said.
- You can either come off mute or place your comment in the chat.
 - Please remember to mute yourself after asking a question or commenting.
- Feel free to leave your camera on or off. I just ask that you participate verbally or in the chat.

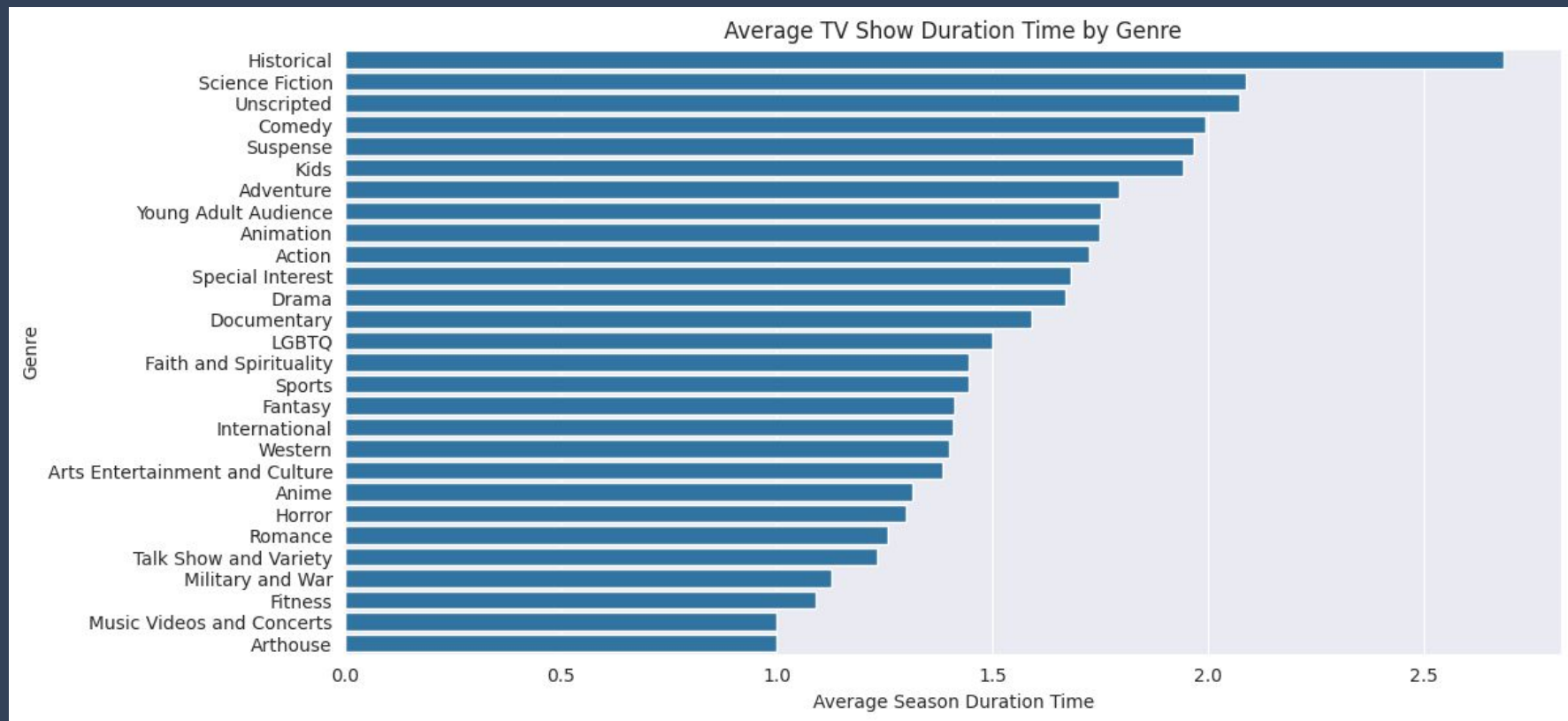
Welcome to today's class, before we begin, pop into the chat:



Items that we will discover!



Items that we will discover!



Items that we will discover!

