

# GWC: Data Science Talk

March 4th 2022







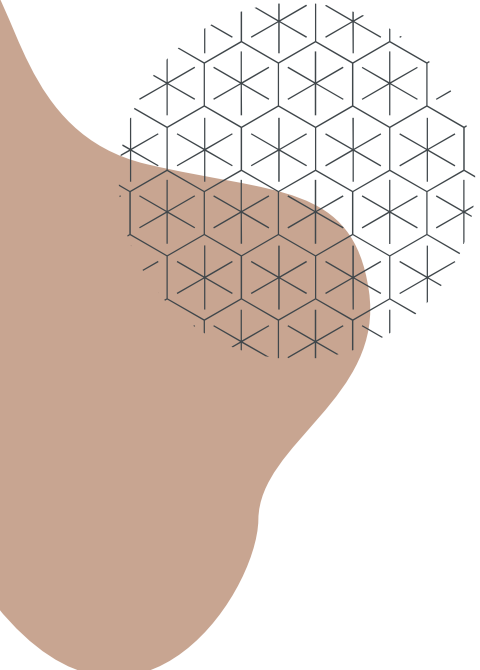
# What is Data Science?

It is the application of computational and statistical techniques to address or gain insights into problems in the real world

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# Data -> Data Products



- Collect
- Clean
- Integrate
- Analyze
- Visualize
- Interact

# Examples of data science applications



## Anomaly detection

Identifies anomalies and outlier values in data sets; uses include fraud detection and cybersecurity



## Pattern recognition

Discovers patterns in data; uses include customer analytics, financial trading and risk management



## Predictive modeling

Models future behavior and events; uses include targeted marketing and predictive maintenance



## Recommendation engines

Suggest products and items to customers; uses include online retail and streaming media services



## Sentiment analysis

Analyzes data to understand customer sentiment; uses include marketing and customer service



## Conversational AI

Enables chatbots and AI assistants; uses include customer service and information retrieval

# Importances of Data Science

- Its is accessible to any/all sectors
  - Big Data
    - findings and results can be applied to i.e healthcare, policy/politics, education, etc. -> social data science

# Ethics

- Ownership
- Transparency/Intention
- Privacy
- outcome

- The goal is to responsibly collect and manage data, and use the data to make informed decisions and advance innovation



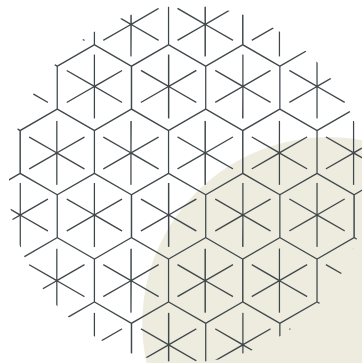
# Resources

## Classes @ RU:

- 01:920:394:01 Social Data Science (Fall 2021)
- 01:790:391 Data Science for Political Science
- 01:198:439 Introduction to Data Science
- Data Science Program
  - <https://mps.rutgers.edu/data-science>

## Sites:

- <https://www.bluebonnetdata.org/post/so-you-want-to-work-in-political-data>



## **Demo - Spotify API**

