

Data Interpretation

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UNIVERSITÄT
BERN

Discover the Hidden Meanings of Data

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A Question For You

What Mostly Matters for Data Interpretation?

- 1 Programming/Software Engineering Skills
- 2 Mathematics/Statistics Skills
- 3 Domain Knowledge

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Assistant Professor of Information Systems University of Bern, Switzerland

PhD, Information Systems
MSc, Systems Engineering
BSc, Industrial Engineering

Teaching:

Data Science for Business Applications
Business Intelligence

Research Interest:

Data Science, Social Media, Online Social Interactions, User Engagement, Online Social Movements



Learning Outcomes

At the end of this session, you will...

1

Have a better view on data interpretation and storytelling

2

Be able to explain RFM analysis

3

Be able to transform data for RFM analysis using Python

4

Be able to conduct RFM analysis using Python and uncover interesting hidden insights from data

Why do we visualize data?

1

To inspect the data in data preparation process

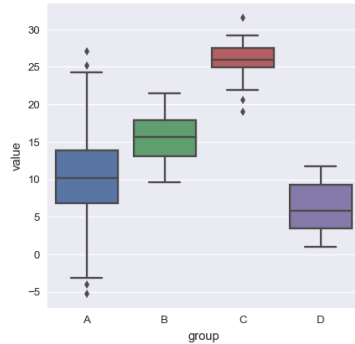
2

To explore and discover patterns and insights

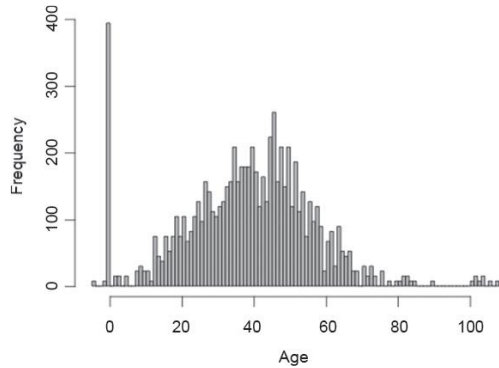
3

To communicate findings of the analysis

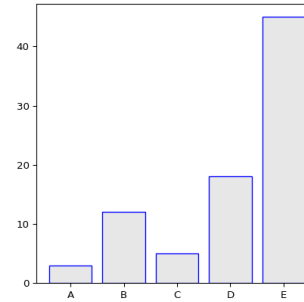
Data Visualization Techniques



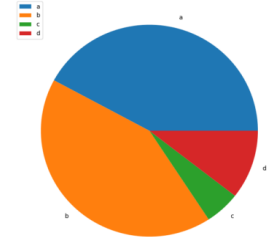
Box Plot



Histogram

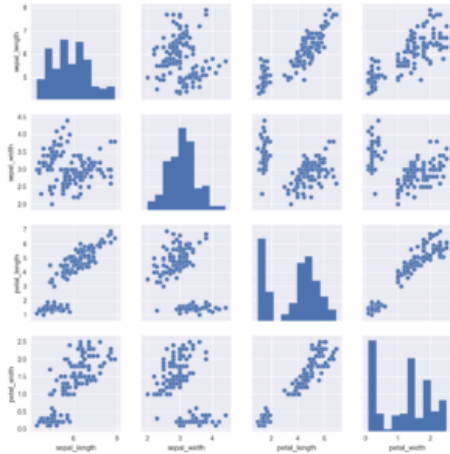


Bar Plot

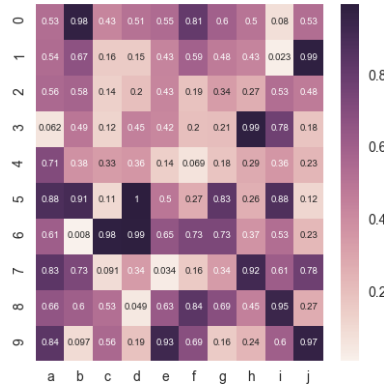


Pie Chart

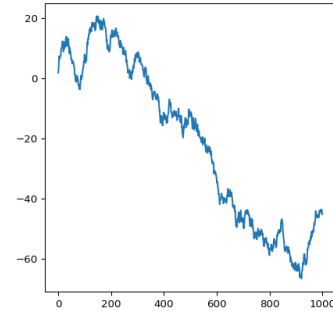
Data Visualization Techniques



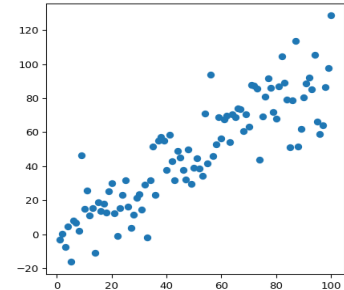
Scatter Matrix



Heatmap



Line Chart



Scatter Plot

A conceptually-based analysis that sheds light on behavioral characteristics of customers/users, and is open for interpretation in different contexts.

(R) Recency: The interval between the purchase and the time of analysis.

(F) Frequency: The number of purchases within a certain period.

(M) Monetary: The amount of money spent during a certain period.

What Mostly Matters for Data Interpretation?

 Mentimeter

