

Analysis of stock market recommendations using computer vision

In partial fulfillment of the requirements of the degree of
M.Tech. in Data Science

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What are we going to learn?

- 1 Part I - Data science: the industrial perspective
 - Need of data science in industries
 - Data Science - Industries vs Consumer driven
 - Enabling technologies for data science

Need of data science in industries

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Need of data science in industries

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- ① Voluminous data generated from user metrics helps us optimise various processes
- ② Helps personalise Human Machine Interaction (HMI)
- ③ Helps understand data whose volume, velocity and variety etc. can't be processed and understood easily in terms of patterns and trends

Data Science - Industries vs Consumer driven

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- 2 Industries use wide varied ML algorithms for analysing and acting on collected data as opposed to dedicated algorithms and data collecting regimes for small industries
- 3 Industrial applications of data science have grown exponentially with the advent of Industry 4.0 (IoT - connected devices and machines)

Data Science - Industries vs Consumer driven (contd.)

- ④ Applications in industries are delay sensitive, while in homes or small consumer driven solutions they are not.
- ⑤ Harsh environments are prominent in factories and industries while the same may not be true for home applications.
- ⑥ Industrial applications are **mission critical** while small scale data science solutions may not pertain to some mission.

Data acquisition

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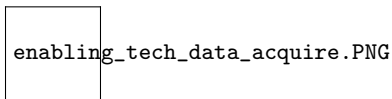


Figure: Bandwidth vs Coverage for a variety of technologies

Data preprocessing, storage and communications

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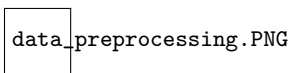


Figure: Data preprocessing techniques

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
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Figure: Commonly used DBMS software[dbms'pic]

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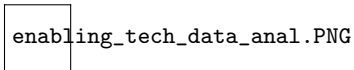


Figure: Business value vs complexity for various data analysis approaches

References I

Thank You