

Webinar

Data Science, Future Science



Lecturer:

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Aspiring Data Scientist
MSc. Industrial Engineering

Winter 2022





❖ MY JOURNEY

MSc. Industrial Engineering, Tarbiat Modares University
Data Science Researcher especially in Intelligent Transportation Systems
Data Science Courses Instructor in Iranian top-notch Universities
Data Scientist at Snapp!Food
Data Science Consultant in Industries: Healthcare, Supply Chain, Transportation,...
Marketing Data Analyst at Pasargad Insurance Co.

Data Science is essential!



5 Exabyte Data generated every minutes **NOW!**

ONLY **0.5%** of generated Data are analyzed

Data Explosion



64,140
Instagram stories
posted



336,480
Skype calls



567,360
Tweets sent



5,365,260
YouTube videos
watched



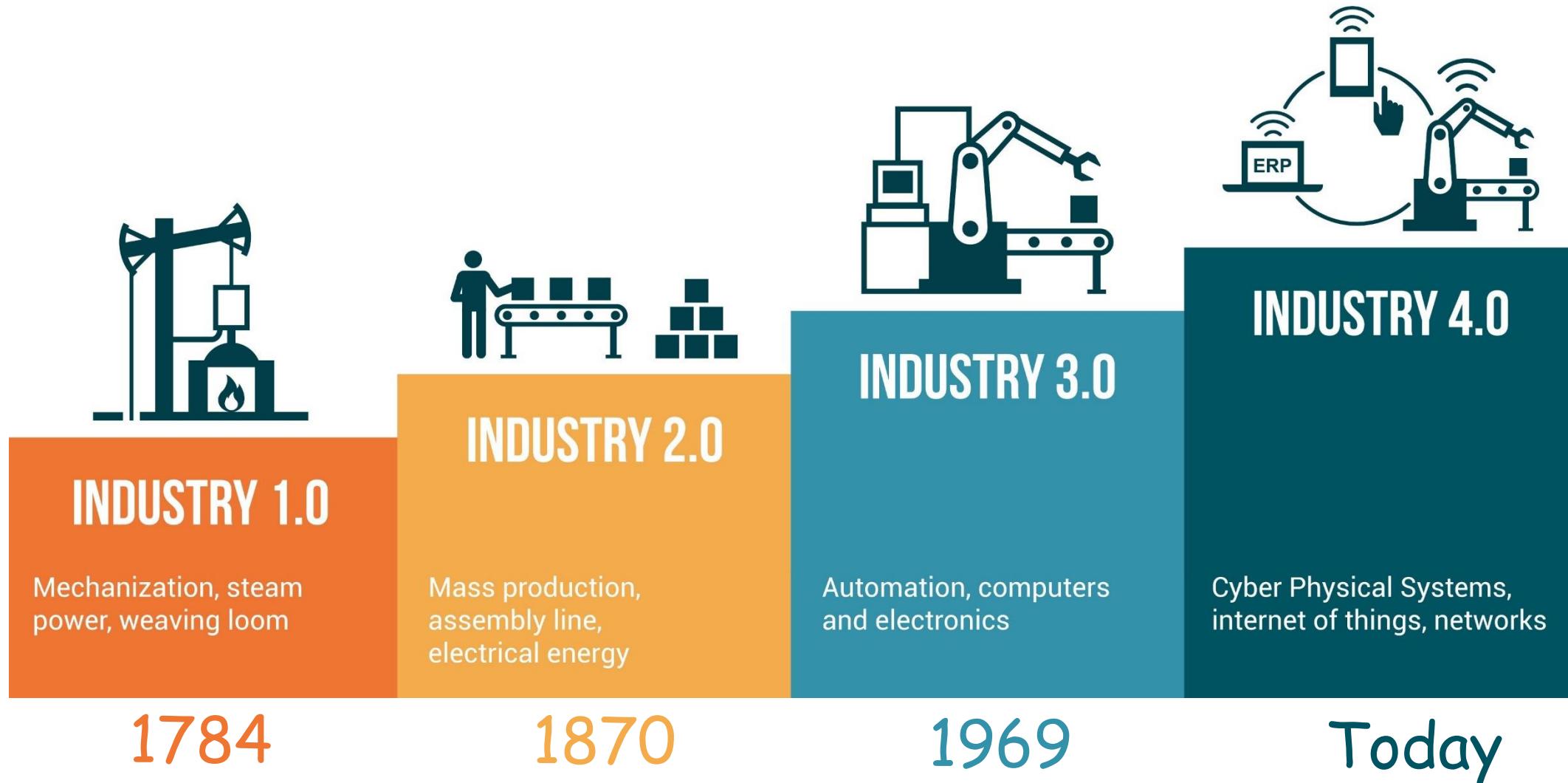
5,500,560
Google searches
conducted



181,331,340
Emails sent

Picture source: SAS

Data Science History



Data Science History

Due to improving technology and science, traditional techniques may not be suitable for analyzing data

WHY??

The data is:

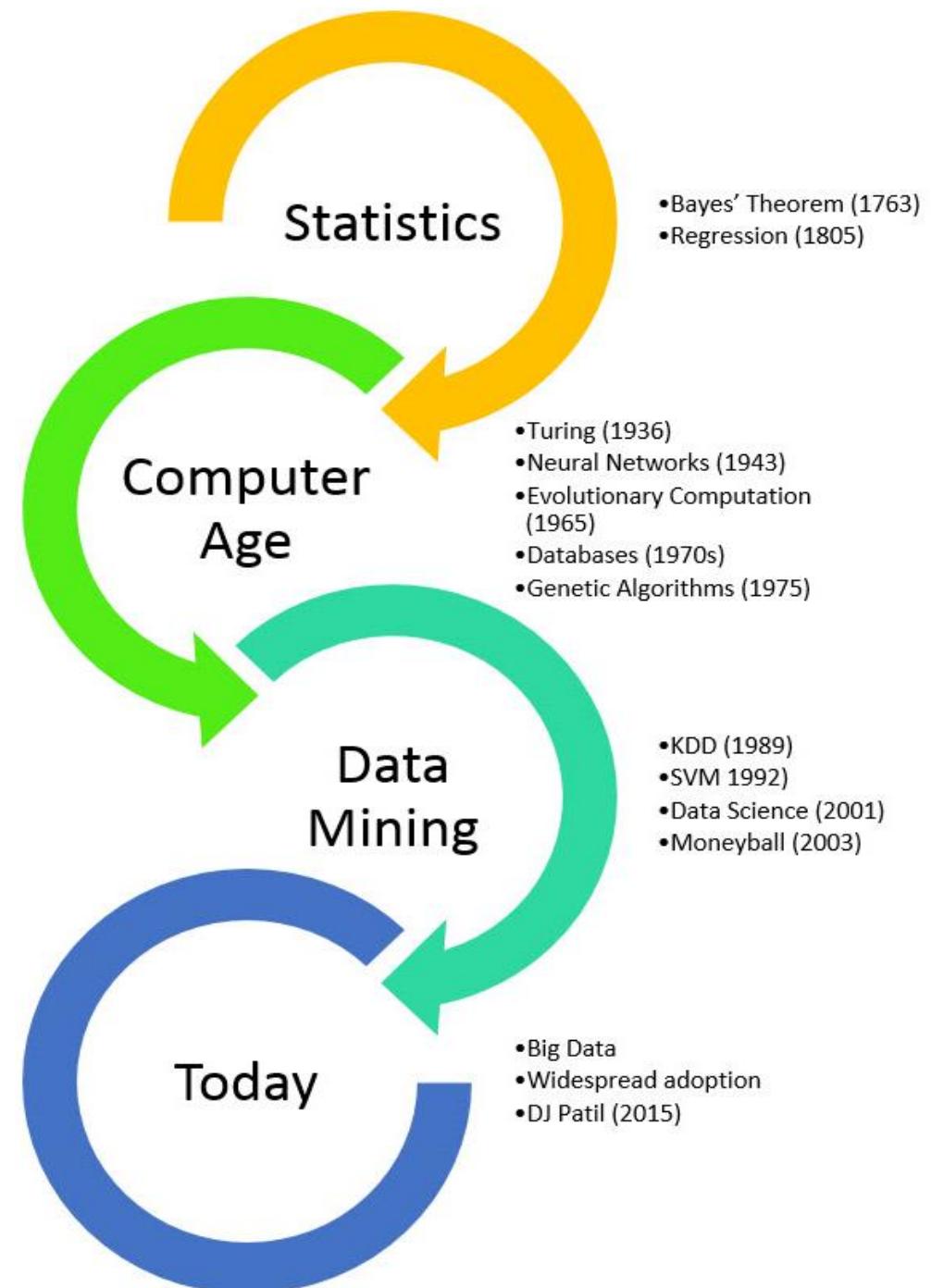
Large Scale

High dimensional

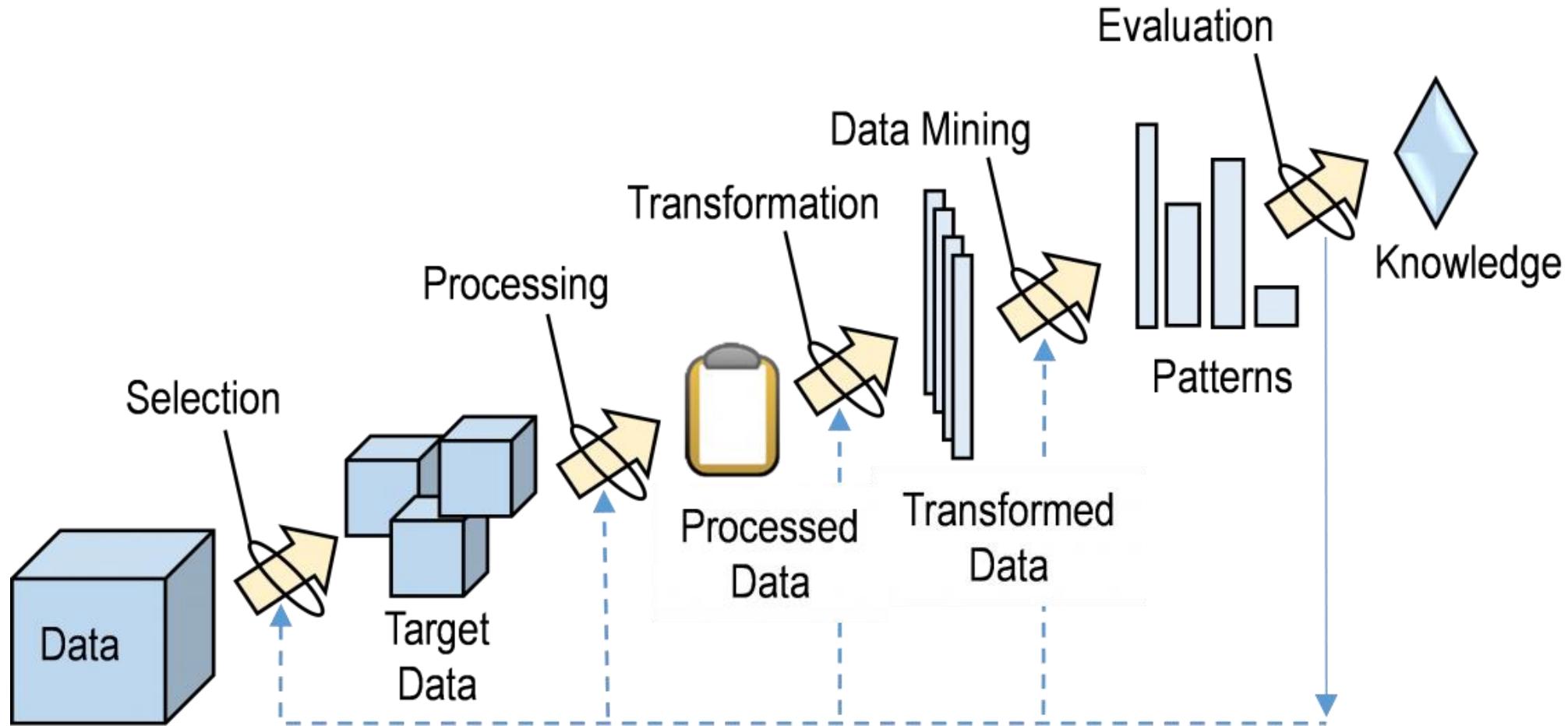
Distributed

Complex

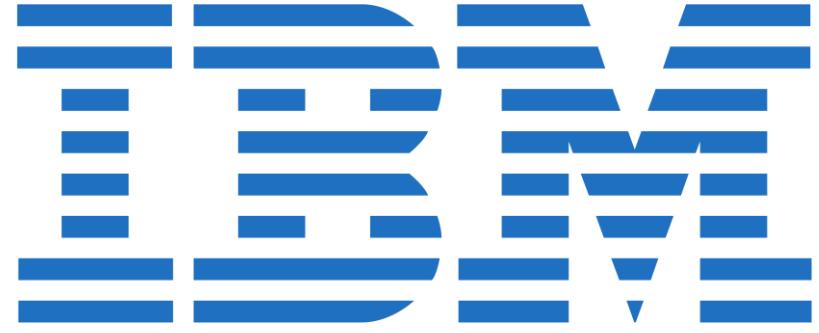
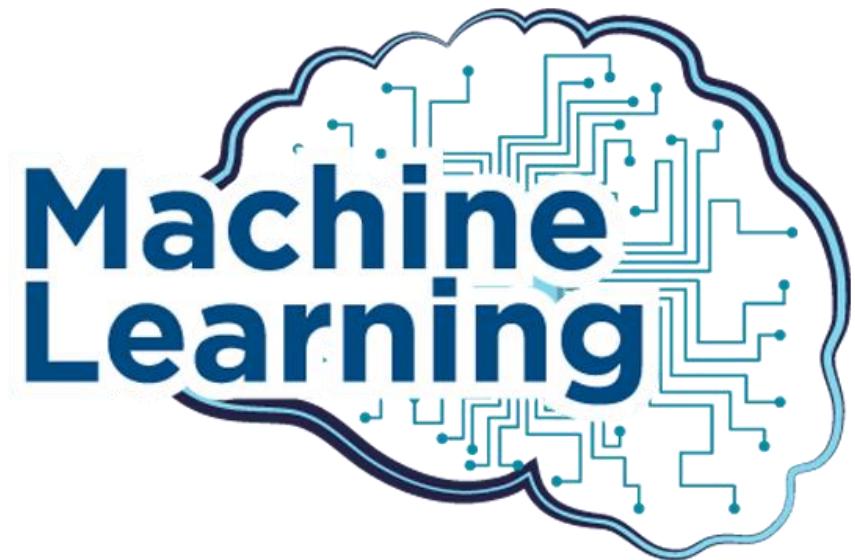
Heterogeneous



Data Mining Process



Machine Learning is a priority!



Machine learning is a branch of artificial intelligence and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.

Handle unforeseen situations with DS

Business Analysis
for Smarter
Decisions

Making Better
Products

Managing
Business
Efficiently

Predictive
Analysis to
Predict
Outcomes

Leveraging Data
for Business
Decisions

Assessing
Business
Decisions

Automating
Recruiting
Process

Applied Data Science



Sound Modelling by Complex
Deep Neural Networks

Recommend to users



Applied Data Science



QATAR
AIRWAYS القطرية



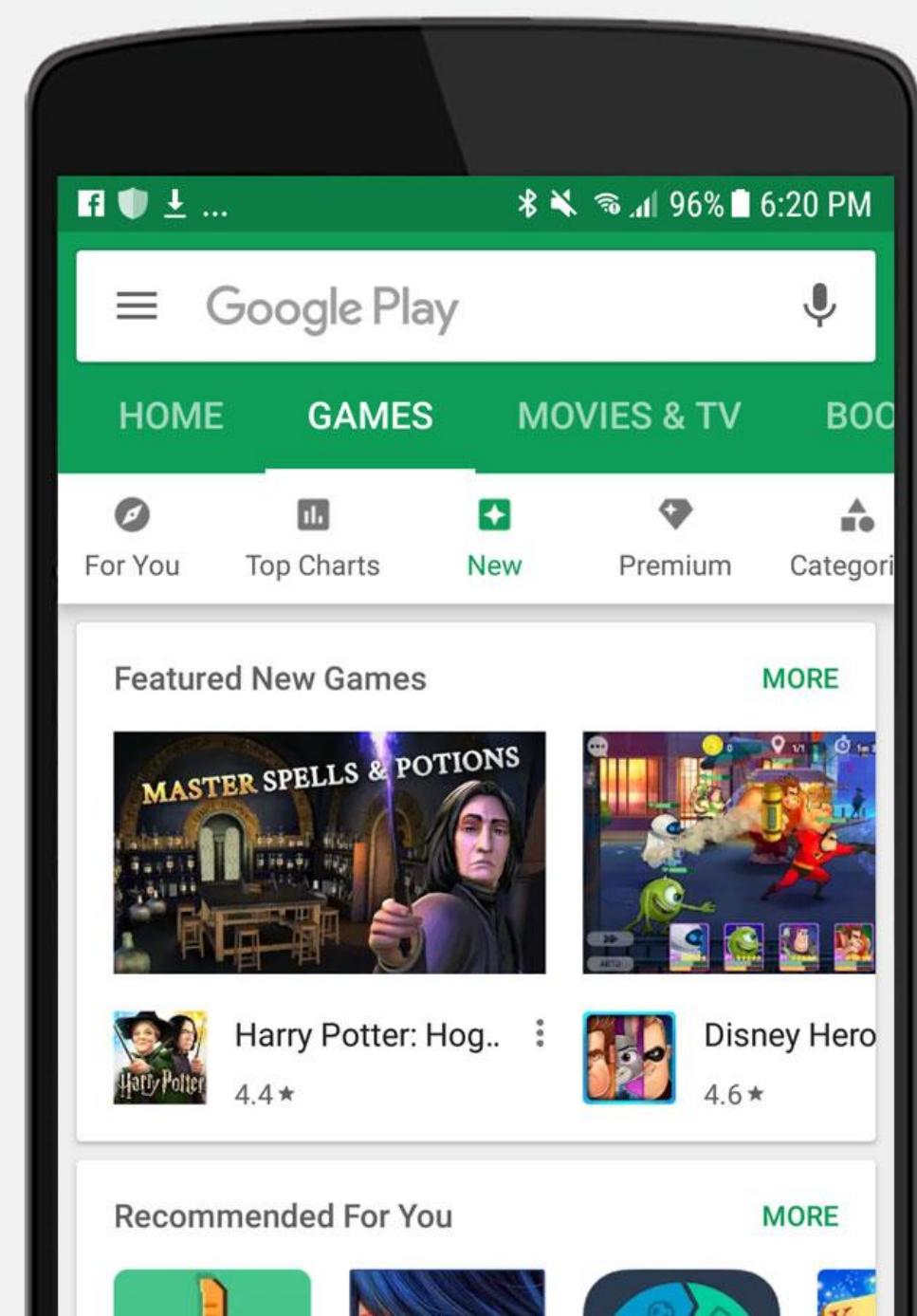
Dynamic Seat Allocation

Applied Data Science



Google Play

Classify Applications by Rating



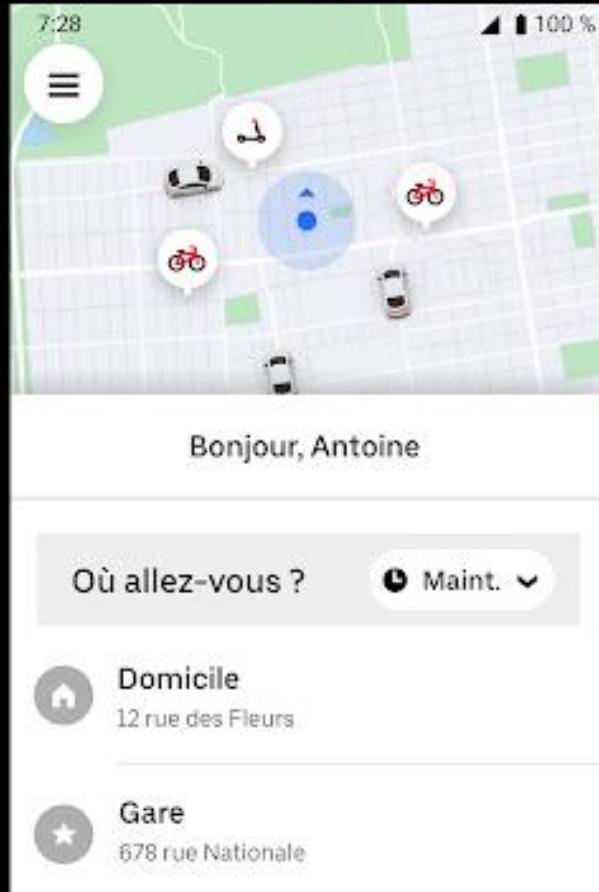
Applied Data Science



Applied Data Science

Dynamic Vehicle
Matching

Minimize Passenger
Waiting Time



Applied Data Science



Dynamic Inventory Management



Applied Data Science



Customer behavior segmentation
in Internet Packages

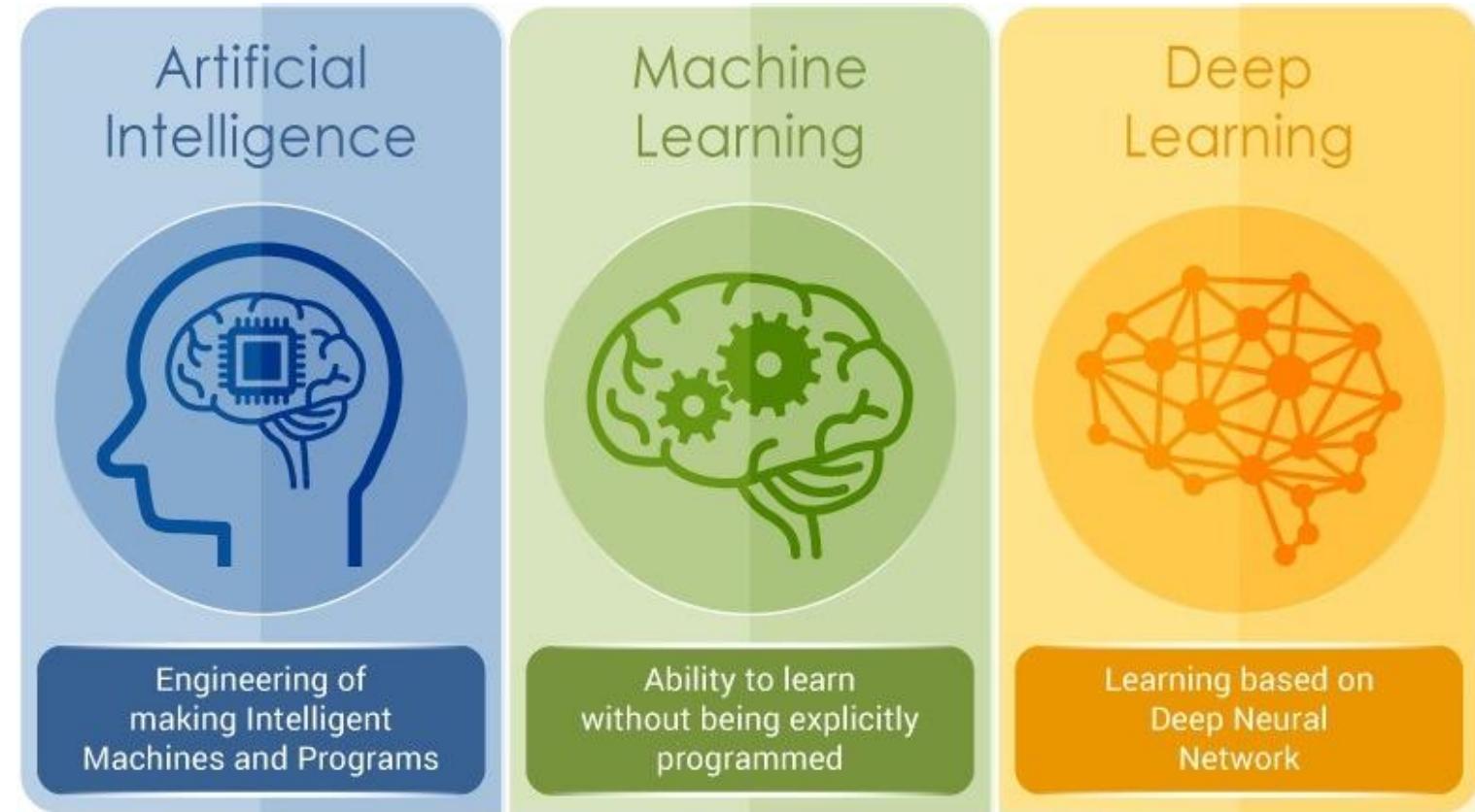
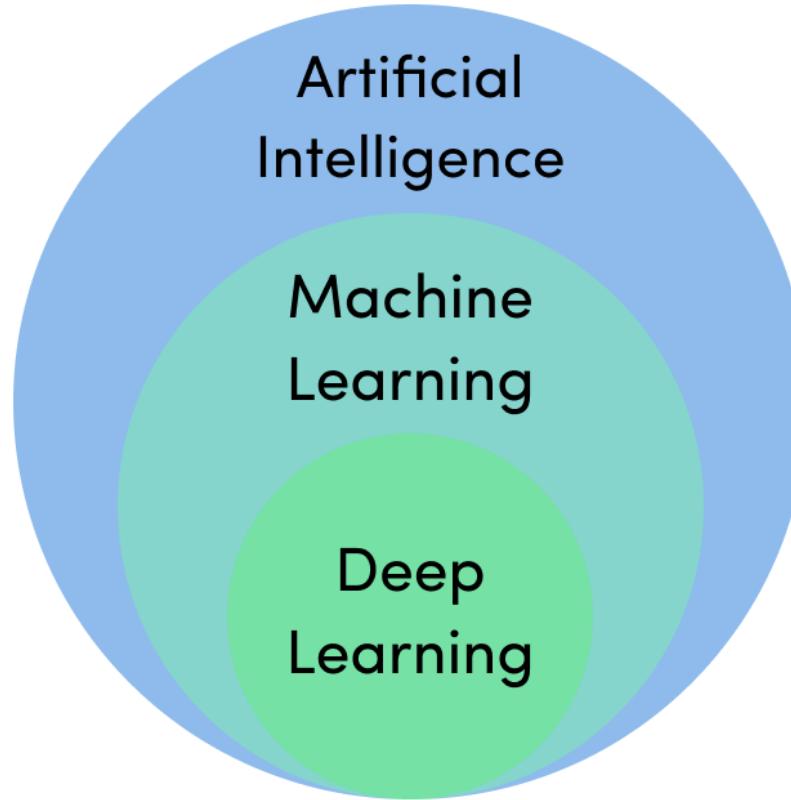


Real-time analytics

combines the data related to customer profiles, network, location, traffic, and usage to create a 360-degree user-centric view of the product or service.

Advanced Topics in Data Science

Deep Learning



Advanced Topics in Data Science

Big Data

Big Data is **larger**, more **complex** Datasets,
especially from new data **sources**

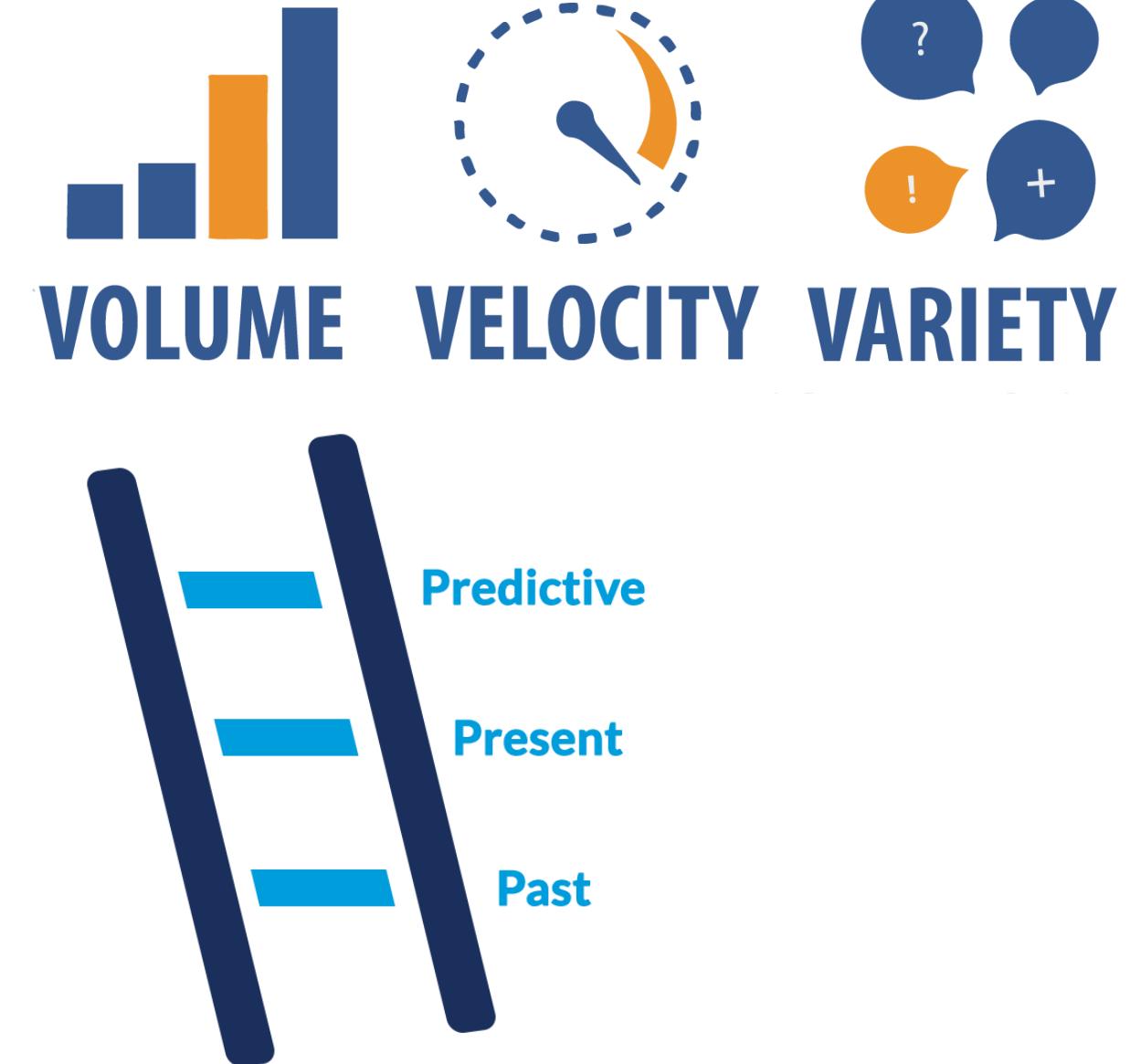
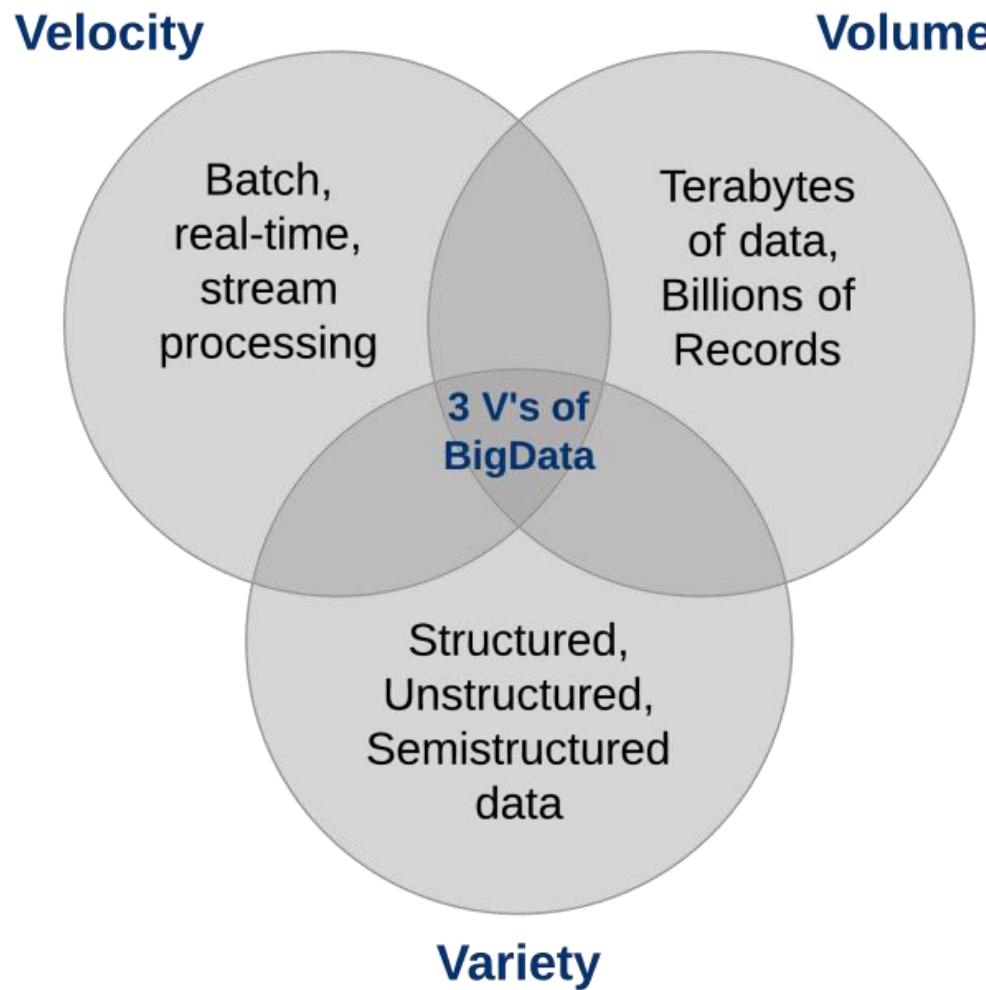
Traditional Data Processing
software just **can't** manage them

This is also known as the **three Vs**



Advanced Topics in Data Science

Big Data



Advanced Topics in Data Science

Big Data

Streamline
Resource
Management

Improve
Operational
Efficiencies

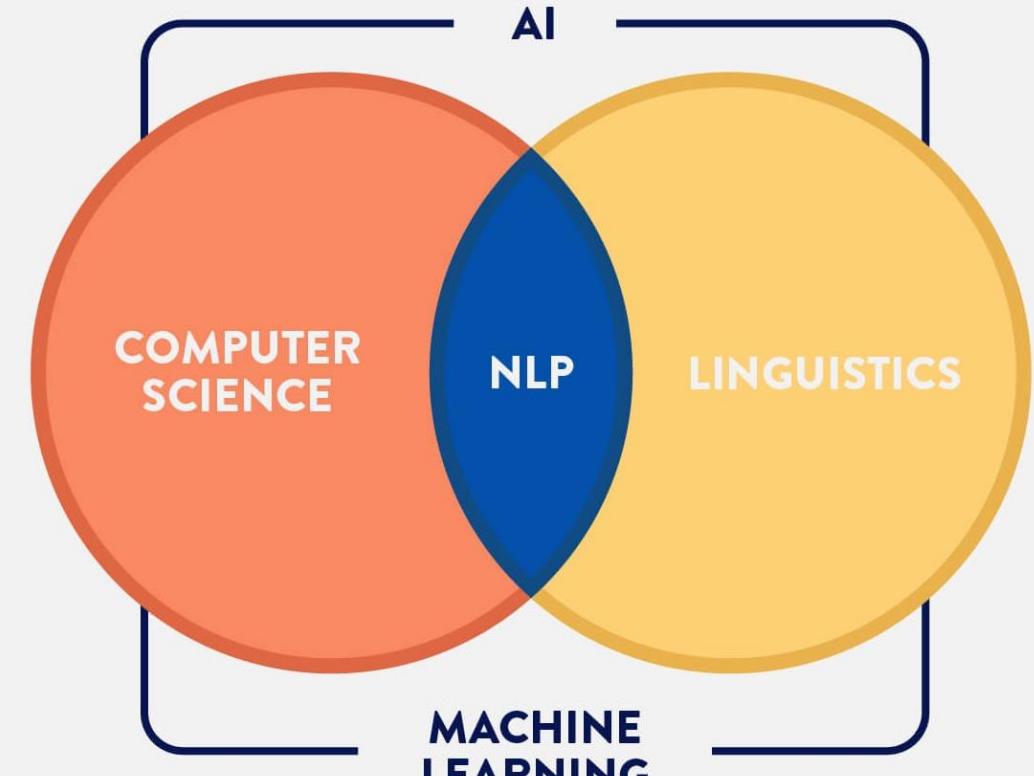
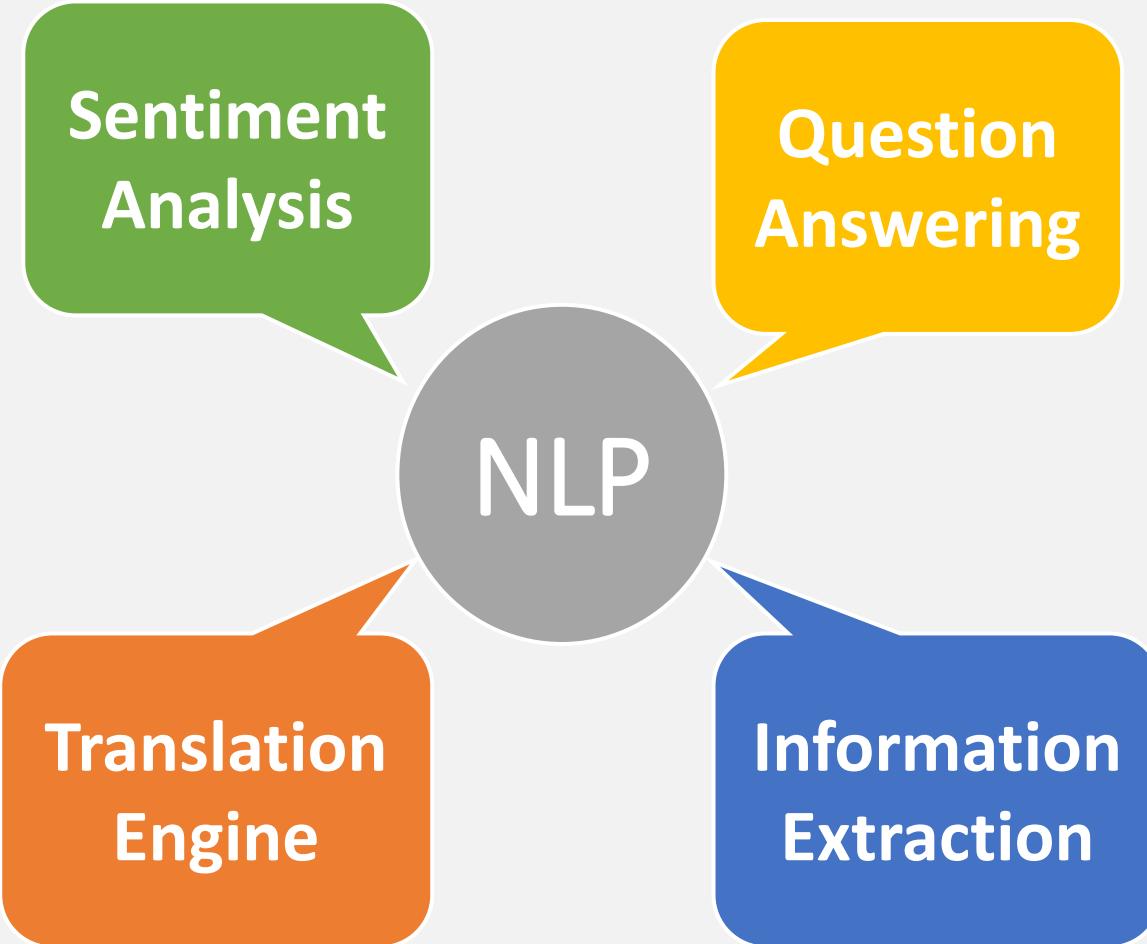
Optimize
Product
Development

Drive new
Revenue and
Growth
Opportunities

IMPORTANT

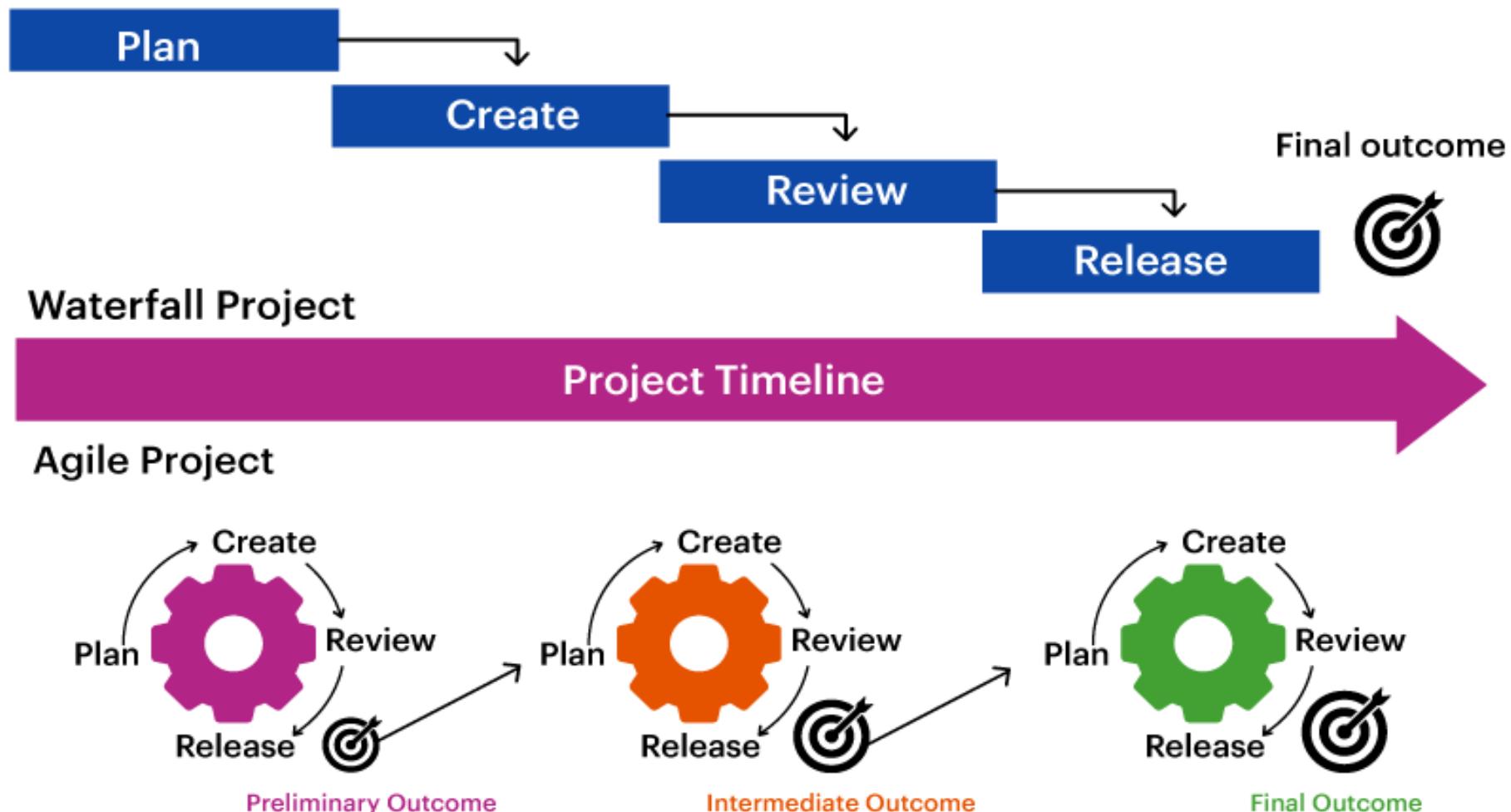
Advanced Topics in Data Science

Natural Language Processing

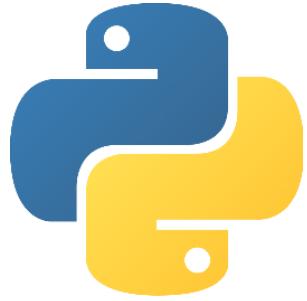


How to build a Data Science team?

Agile Methodology



Essential Skills for Data Science



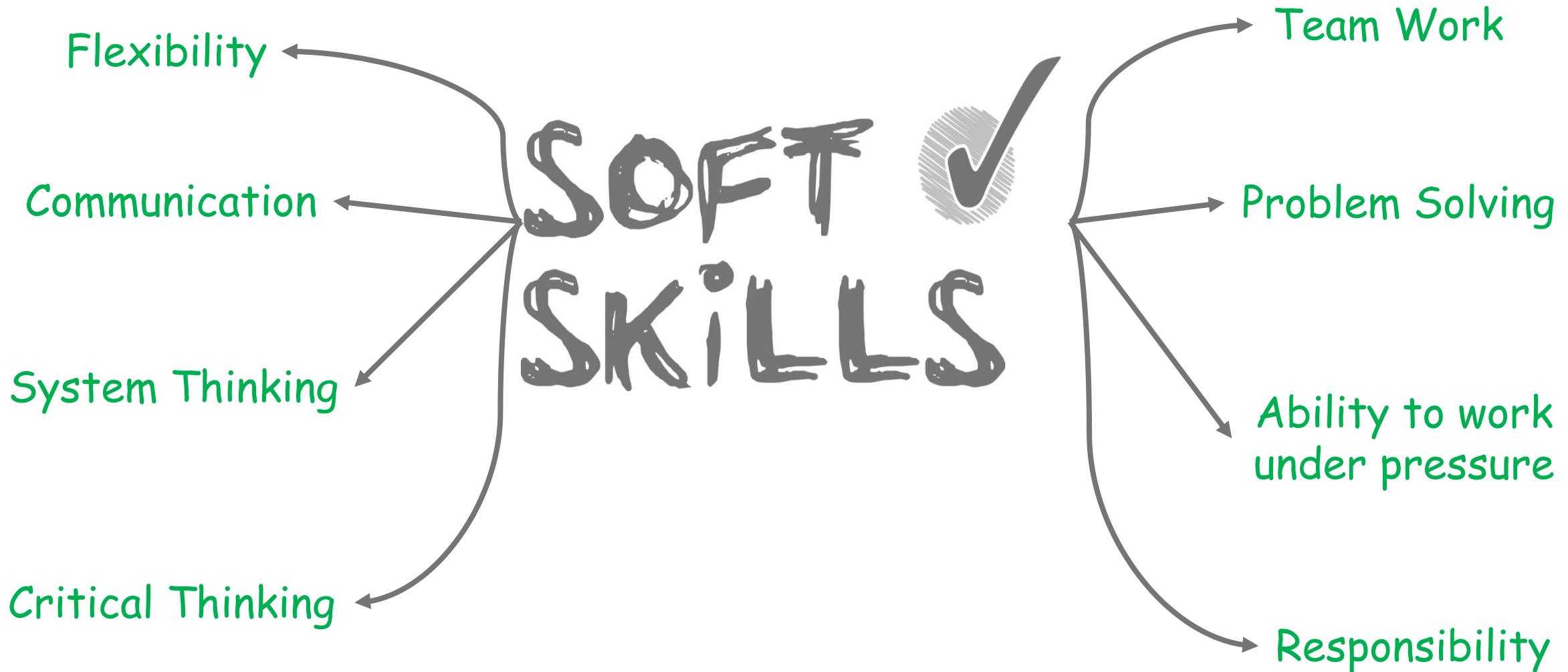
PostgreSQL



julia



Essential Skills for Data Science



Data Scientist

Business Analyst

Data Architect

Product Manager

Related Job Positions

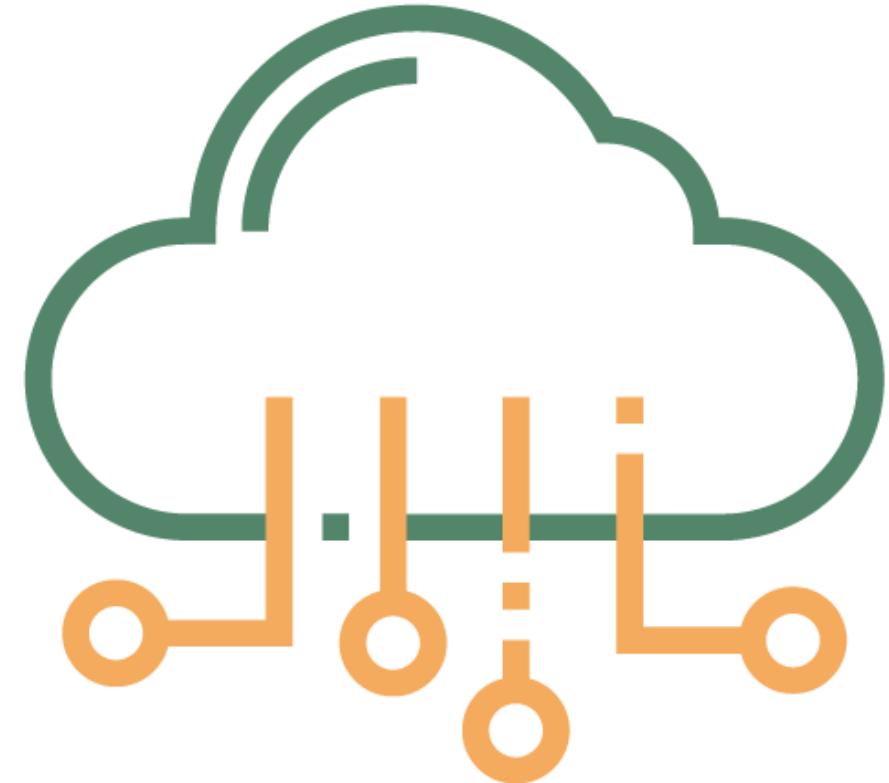
Data Analyst

Data Engineer

Machine Learning
Engineer

Data Science in the Future!

Cloud computing is a subscription-based delivery model that provides scalability, fast delivery and IT efficiencies.

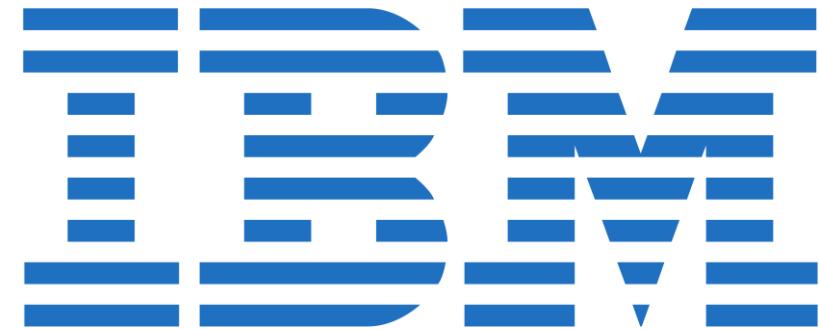


Public Cloud

Private Cloud

A major force for business innovation across all industries

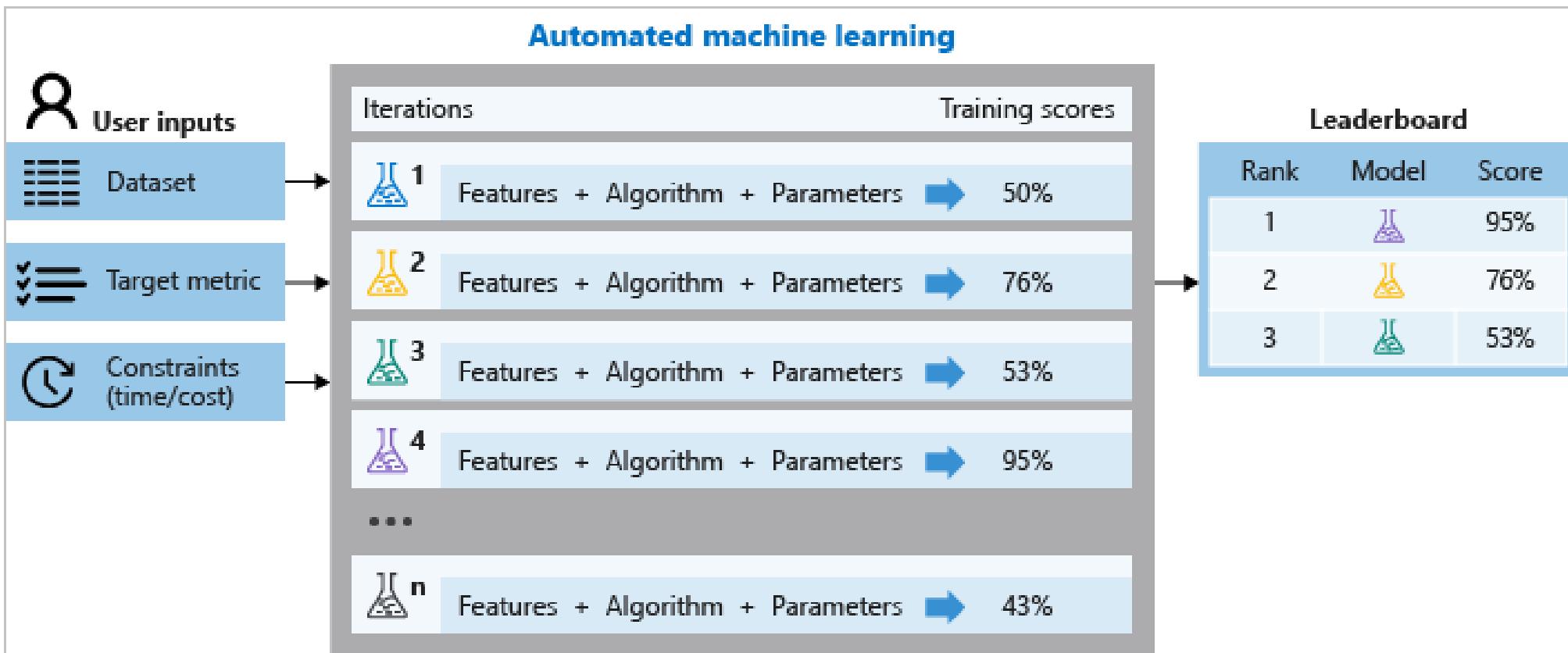
Data Science in the Future!



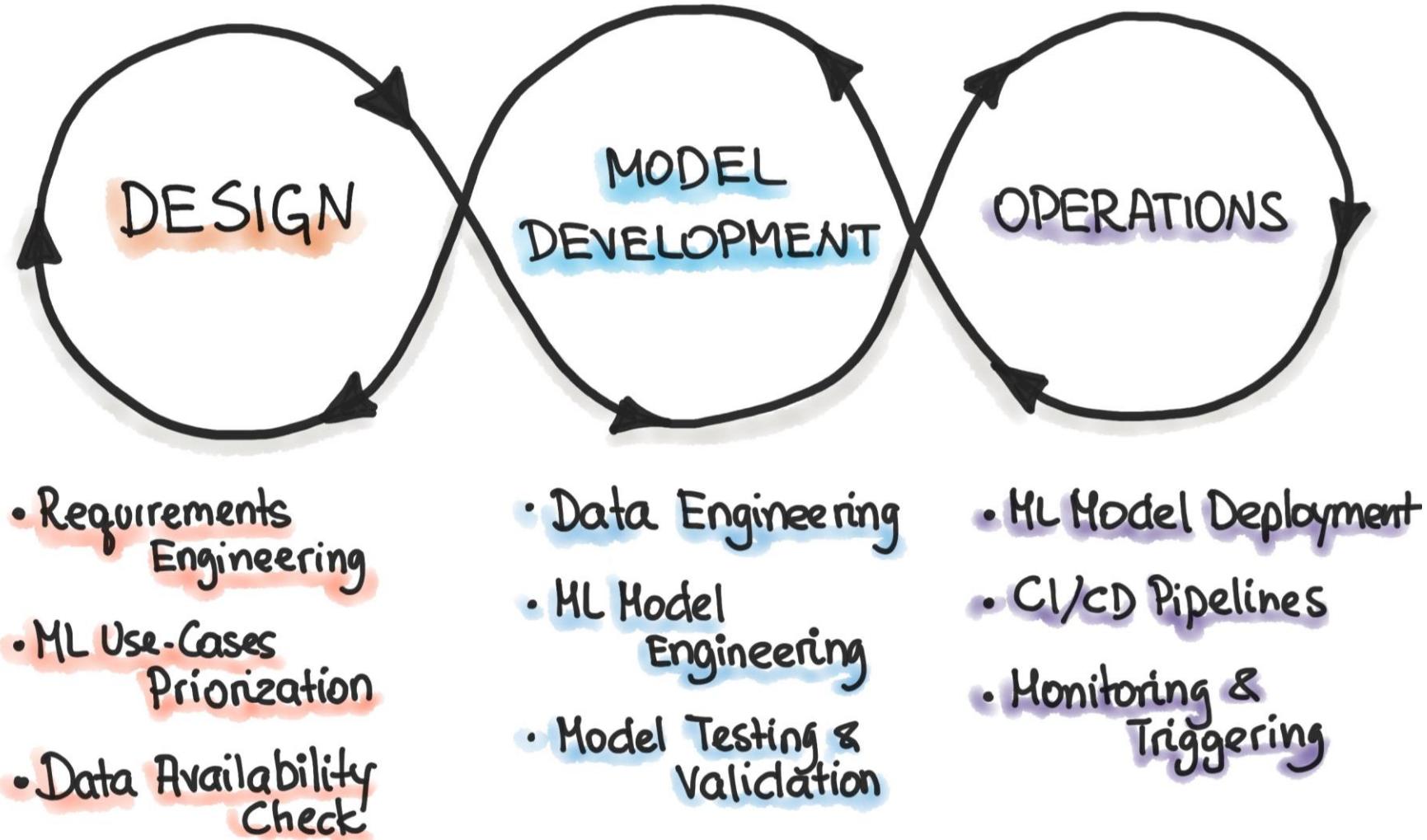
AutoML is a series of processes, methods, and frameworks designed to make machine learning more efficient.

Data Science in the Future!

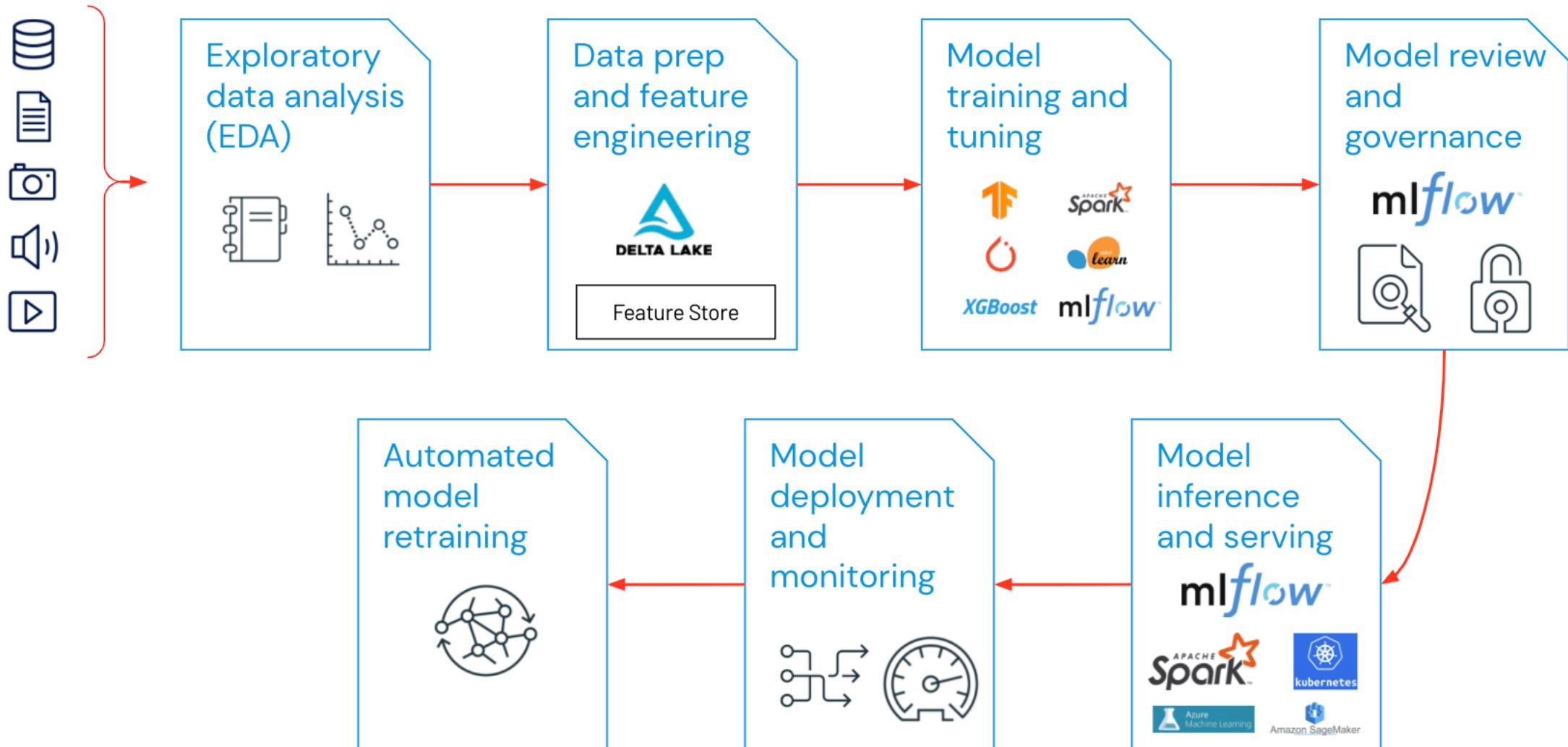
Azure
Machine
Learning



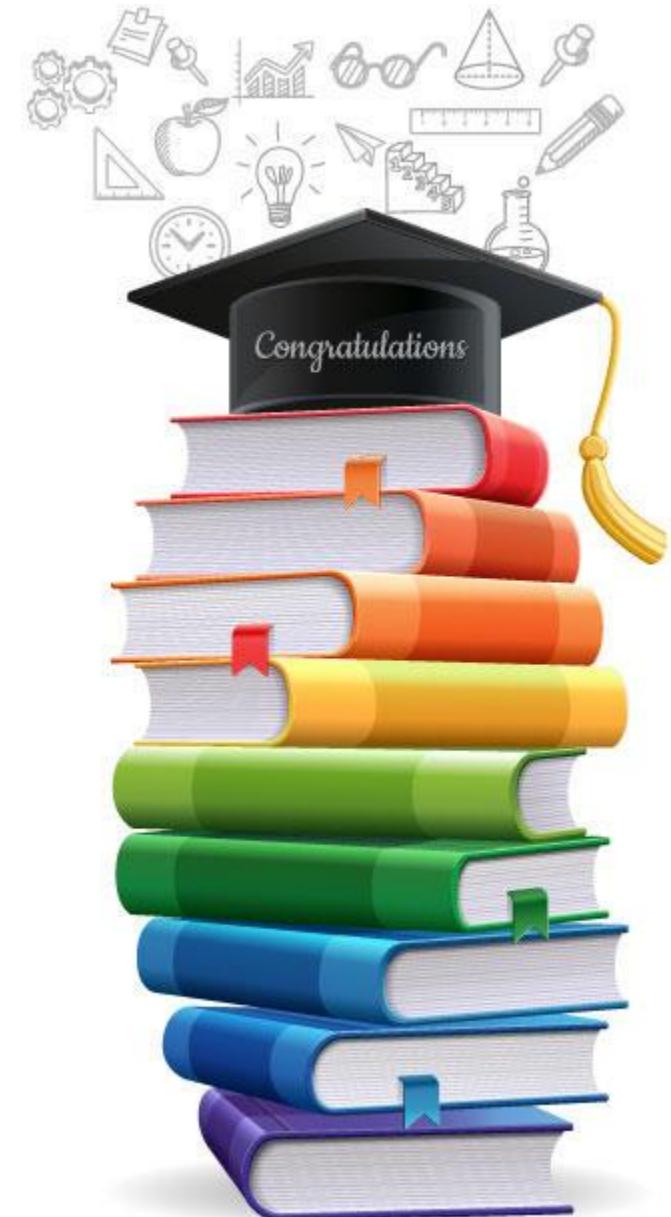
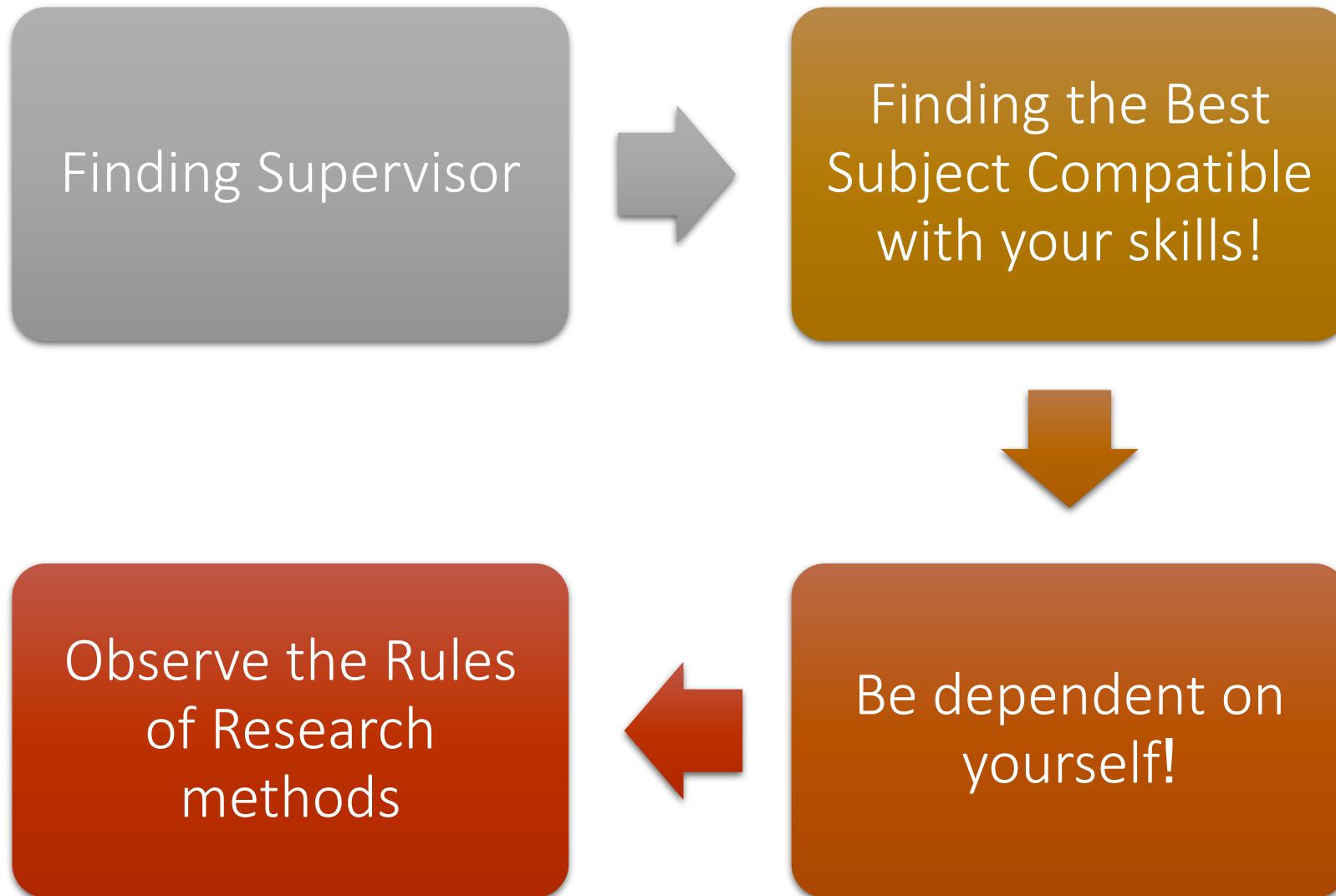
Data Science in the Future!



Data Science in the Future!



Academic Career with Data Science

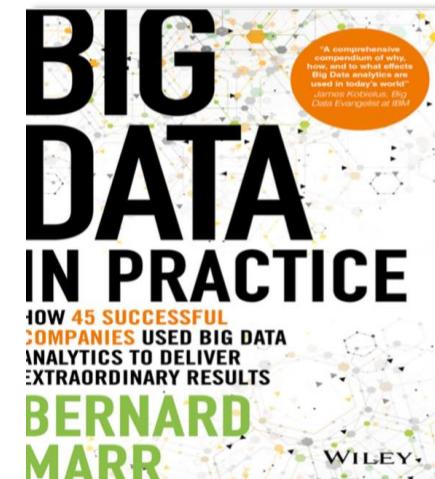
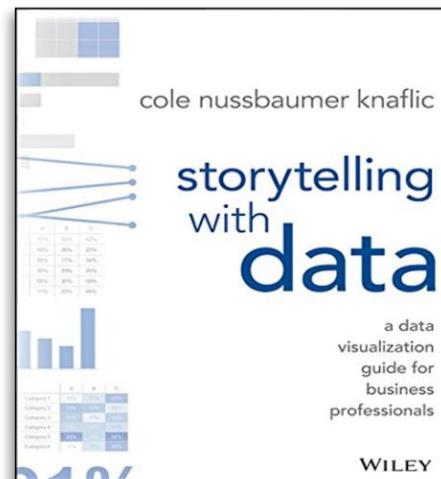
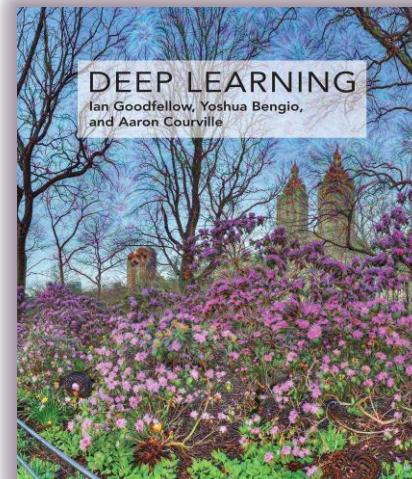
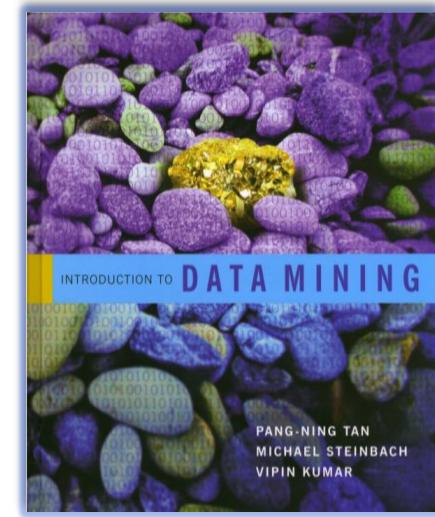
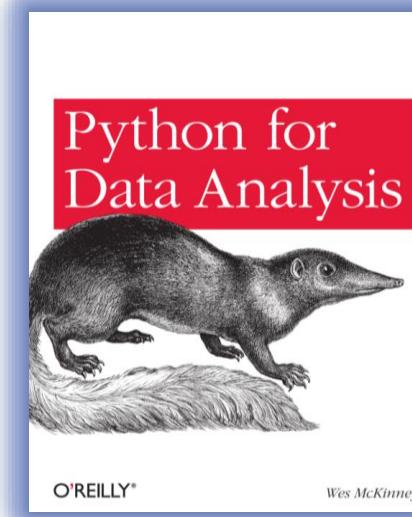
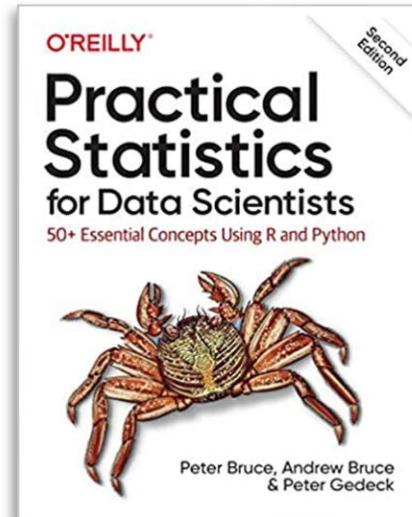


Study References

Course:



Books:



Study References

Competitions:

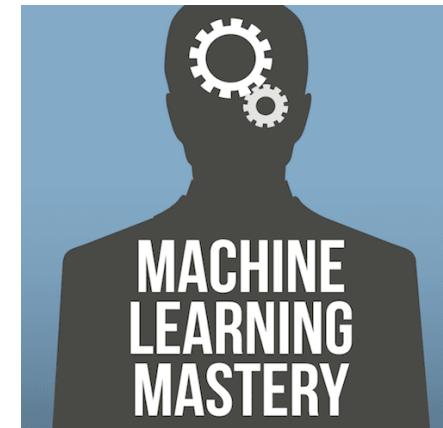


DataCamp

kaggle

w3schools.com

Articles:



Google Scholar

Useful Advices!

Strong Relationship with Programming

Good Command of English

Do NOT Learn Everything!

Learn from Everywhere!

Be Patient



Conclusion and Questions?

THANK YOU!



@ScienceWave



Sciencewave Academy



ScienceWave

