

Summary



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Key Points

Machine Learning
is here today

Machine Learning
is data driven

Follow the
Machine Learning
Workflow

Machine Learning Workflow

A large teal banner at the top of the slide contains the title 'Machine Learning Workflow' in white text. Below the banner, five grey rectangular boxes are arranged horizontally, each containing a step of the workflow. The boxes are separated by teal vertical bars. A large white arrow on the right side of the slide points to the right, indicating the flow of the process.

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

A diagram showing the Machine Learning Workflow. It consists of five steps arranged horizontally, each in a box. The first box is blue with white text, and the others are grey with white text. A large white arrow on the right points from the first step to the last.

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

A diagram showing the Machine Learning Workflow. It consists of five steps in a sequence, represented by boxes. The first box is blue and contains the text 'Asking the right question'. The subsequent four boxes are grey and contain the text 'Preparing data', 'Selecting the algorithm', 'Training the model', and 'Testing the model' respectively. The boxes are connected by a large white arrow pointing from left to right, indicating the flow of the process.

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Started with question

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Started with question

Used requirements and knowledge to transform

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Started with question

Used requirements and knowledge to transform

Resulted in solution statement

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Retrieved diabetes data

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Retrieved diabetes data

Cleaned data

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Retrieved diabetes data

Cleaned data

Molded data

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Learning type

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Learning type

Result type

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Learning type

Result type

Complexity

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Learning type

Result type

Complexity

Basic vs. Enhanced

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Split data - 70% / 30%

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Split data - 70% / 30%

Trained with training data

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Machine Learning Workflow

A diagram illustrating the Machine Learning Workflow. It features a teal background with a large white arrow pointing right. The workflow is represented by five vertical rectangular boxes. The first four boxes are grey and contain the text: 'Asking the right question', 'Preparing data', 'Selecting the algorithm', and 'Training the model'. The fifth box is purple and contains the text: 'Testing the model'. Below the purple box, the text 'Evaluated prediction' is written in white.

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Evaluated prediction

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Evaluated prediction

Selected Logistic Regression

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Evaluated prediction

Selected Logistic Regression

Achieved success

Machine Learning Workflow

Asking
the right
question

Preparing
data

Selecting
the
algorithm

Training
the
model

Testing
the
model

Evaluated prediction

Selected Logistic Regression

Achieved success

Used Cross Validation version for better general performance

Pluralsight Courses

Python Fundamentals

Understanding Machine Learning with R



Online Resources

UCI Machine Learning Repository

archive.ics.uci.edu/ml

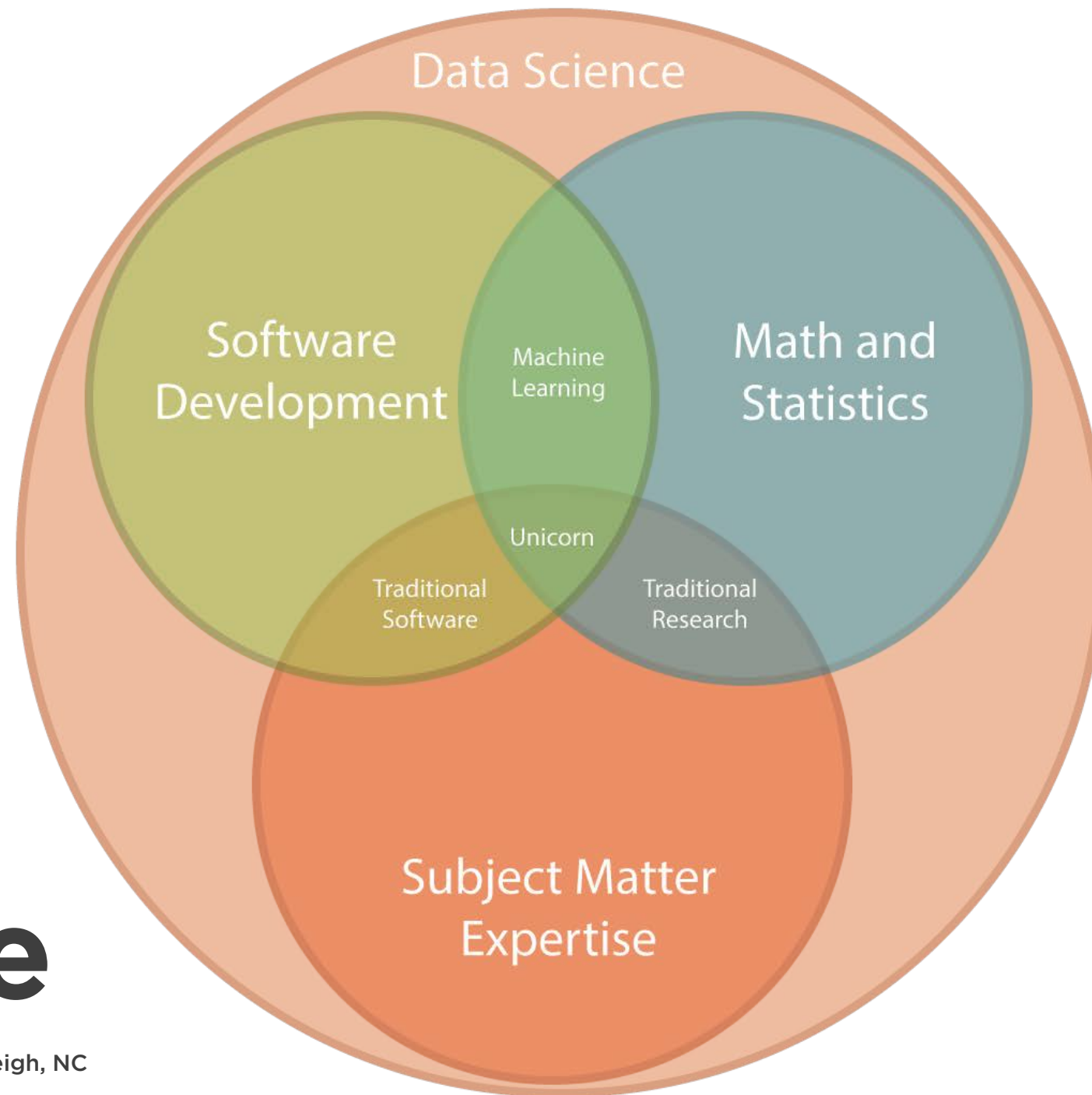
Jupyter Notebook

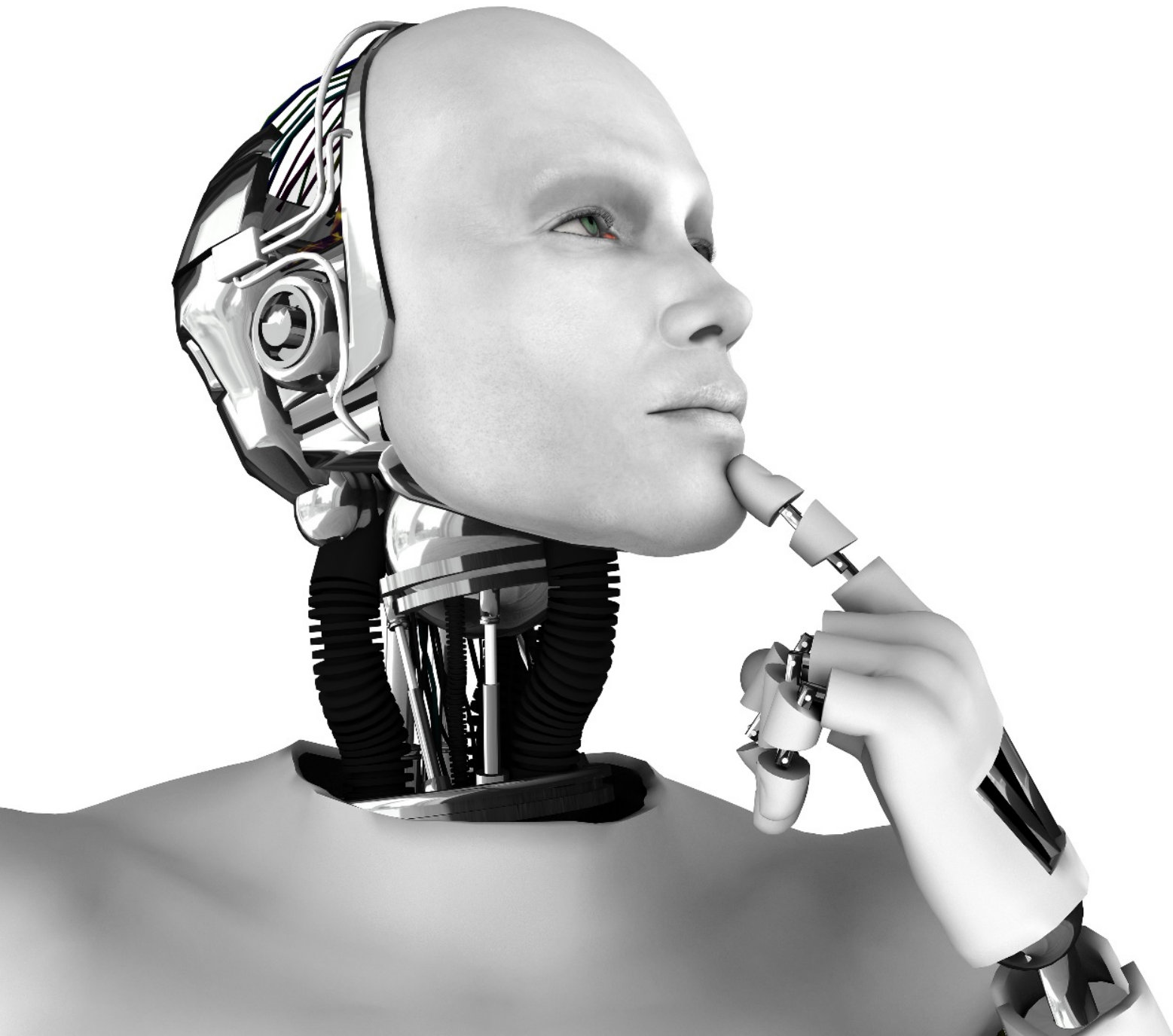
<https://jupyter.org/>



Data Science

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*“Live as if you were to die tomorrow.
Learn as if you will live forever.”*

Mahatma Gandhi

