MBS (Online) Summer School 2021, Module 3: Introduction to the world of Big Data & Analytics

Content:

In this course, we will dive into the world of Big Data by talking about the core characteristics of Big Data and the basic principles of Machine Learning. Topics to be discussed include an introduction to the tools and methods used to analyze Big Data, an overview of what can and can't be learned from Big Data, hot topics regarding Big Data ethics and privacy, and the presentation of several Big Data use cases.

This module is designed for those who are relatively new to the world of Big Data and want to become conversant with the terminology and the core concepts of the Big Data world. You need no prior knowledge of Machine Learning or computer science. Experience with statistical programming languages and software (e.g., R or Python) may be advantageous, but is no requirement and we will provide opportunities to acquire such skills before the start of the course.

Learning outcomes:

You will not become a data scientist in a week, but at the end of this course, you will be able to understand core concepts related to Big Data and Machine Learning. You will gain expertise that will help you navigate through a data-driven world.

You will:

- Take the first step to become data literate
- Understand what Big Data means, how it is defined and affects your daily life
- Gain insights into ethical consideration and data privacy issues concerning Big Data
- Learn about the organization of data sets
- Receive an overview of Big Data analysis techniques
- Learn how to approach Big Data topics
- Learn the important vocabulary of the data science world
- Be able to identify strengths and weaknesses of Big Data analyses

Prerequisites:	A basic understanding of mathematics/statistics is helpful (not required).
Contact hours:	30
ECTS:	3
Form of assessment:	Class Participation (40 %)
	Presentation (60 %)
Duration of module:	July 19 - 23, 2021
Lecturer:	Anna-Carolina Haensch, Frederic Gerdon
Language:	English
Range of application:	Graduate and advanced undergraduate students