UNIWERSYTET WSB MERITO GDAŃSK

Big data. Data Engineering (in english)

Forma studiów: Niestacjonarne
Sposób realizacji studiów: Online
GDAŃSK 2 semestry OD MARCA

Program studiów

The studies are aimed for people who do not necessarily graduate from IT studies, but would like to improve their qualifications in the field of Big Data, mainly graduates of economic studies, engineering, biotechnology and mathematics.

Liczba miesięcy nauki: **9**

Liczba godzin: **192**

Liczba zjazdów: **11**

Liczba semestrów: **2**

DATA ANALYSIS WITH R (18 godz.)

R and R Studio environment, atomic types, vectors, lists, functions, data cleaning, plotting, markdown

DATABASE SYSTEMS. SQL BASICS (24 godz.)

ERD diagrams, Normalization, SQL DDL, SQL DML (24 h)

PROGRAMMING IN PYTHON (24 godz.)

Syntax, arrays, functions, Pandas, Statistics in Python

OBJECT ORIENTED PROGRAMMING IN PYTHON (12 godz.)

Attributes, classes, constructor, methods, inheritance, "magic methods"

DATA ANALYSIS IN JAVA (32 godz.)

- Basic concepts of object-oriented programming, development environment and tools, what is data analysis, data science vs. data analysis, why Java, data structures - Java Collections Framework, ETL - Extract, Transform, Load processes (16 h)
- Ways of integration with relational databases, data processing in a functional approach (16 h)

APACHE KAFKA (6 godz.)

Apache Kafka interface: a fast start to streaming data processing (6 h)

NOSQL (MICROSOFT AZURE) (20 godz.)

Basic concepts of NoSQL Databases - HBase, Cassandra, Impala, Neo4j (20 h)

ADVANCED DATABASES AND DATA WHOLESALE (24 godz.)

Advanced aspects of SQL and TSQL; Concepts of data warehouse modelling (ROLAP, MOLAP, HOLAP); Technologies ETL/ELT; Elements of data presentation, e.g. Power BI

BIG DATA TOOLS (MICROSOFT AZURE (24 godz.)

Apache Hadoop & Apache Spark (24 h)

PROJECT (8 godz.)

Seminar (8 h)

Form of crediting the studies:

Form of crediting the studies: semester tests and project defense

https://www.merito.pl/gdansk/studia-i-szkolenia/studia-podyplomowe/kierunki/big-data-data-engineering-english