

SUPPLEMENT

Tech Summer for Educators: Big Data Edition

Number of Hours 60

Number of ECTS Credits 2

COURSE CONTENT:

Basic topics:

- Introduction to Big Data
- Concepts of Data Lake, Data Warehouse, Data Lakehouse
- Data Mesh – a new approach to data management
- Cloud solutions for Big Data: GCP, Azure, AWS
- Data Engineering in the cloud
- DataBricks – a universal platform for data work
- Data security and governance
- Machine Learning and AI in Big Data
- Practical case: building a Data Lakehouse in the cloud

LEARNING OUTCOMES:

The graduate is able to:

- Understand market trends and roles in Big Data
- Evaluate advantages of different data architectures
- Apply cloud platforms for Big Data processing
- Build ETL/ELT pipelines
- Use DataBricks and Apache Spark
- Ensure data quality and security
- Integrate ML into Big Data solutions
- Navigate modern tools and practices