



ViMaCs

Virtual Master Cooperation
Data Science

Summer School on Advanced Perspectives on Data Science

04.07.2022 – 08.07.2022

Dortmund University of Applied Sciences and Arts
Emil-Figge-Str. 42, Room C.3.34

The project "**Virtual Master Cooperation Data Science**" (**ViMaCs**) aims to build a virtual learning and lab infrastructure for a digital teaching and module portfolio in the field of "Data Science".

The Summer School, based on the ViMaCs project funded by DAAD, is covering such topics as:

- Artificial Intelligence and Data Analytics
- Business Intelligence and Decision Making
- Data Acquisition and Processing
- Cloud-Based Data Processing Systems
- Machine Learning Ops

Students will have a possibility to apply their knowledge by solving the case study provided by Blacktron.AI company, at the end of the week the results of the teams will be presented to the company's representatives.

The **Summer School** addresses Master Students from Dortmund University of Applied Sciences and Arts (FH Do), National University "Zaporizhzhia Polytechnic" (NU-ZP), West Ukrainian National University (WUNU), Kyiv National University of Construction and Architecture (KNUCA) and Lviv Polytechnic National University (LPNU). The master students from other universities are also welcome to participate in the event.

Lectures and workshops **will be taught in English**. The Summer School 2022 is **free of charge**.

The Summer School will be held at **Dortmund University of Applied Sciences and Arts**, Dortmund, Germany – with on-site participation.



Deutscher Akademischer Austauschdienst
German Academic Exchange Service

**Fachhochschule
Dortmund**

University of Applied Sciences and Arts

IDIAL Institute for the Digital Transformation
of Application and Living Domains



**Federal Ministry
of Education
and Research**

Programme of the Summer School on “Advanced Perspectives on Data Science”

Location: Emil-Figge-Str. 42, Room C.3.34

Time	Monday, 04 July	Lecturer
09:15 - 09:30	Kick-off and some Organisational Questions (Announcement of the Team Members)	
09:30 - 11:00	Lecture "Process-driven Approach for Big Data Acquisition and Processing"	Anatoliy Sachenko
11:00 - 12:30	Lecture "Working with Open Data"	Pavlo Bykovyy
12:30 - 13:30	Lunch	
13:30 - 14:00	Case-study presentation from the company Blacktron.AI	Oleksandr Gurbych, CEO, Blacktron.AI
14:00 – 17:00	Introduction to VR development with Unity	Christian Reimann and Michael Reiner
Time	Tuesday, 05 July	Lecturer
09:00 - 10:30	Workshop "Gain insight Power BI"	Nataliia Yehorchenkova
10:30 - 10:40	Coffee break	
10:40 - 12:10	Mobile app analytics: key metrics and best practices	Tetiana Kolpakova
12:10 - 13:00	Lunch	
13:00 - 16:00	Teamwork (working on the Case-study)	Tetiana Kolpakova
Time	Wednesday, 06 July	Lecturer
09:00 - 10:30	Thermal imaging as a data source for analysis in applications	Sergey Subbotin
10:30 - 10:40	Coffee break	
10:40 - 12:10	Intro to Machine Learning Ops	Nataliya Shakhovska
12:10 - 13:00	Lunch	
13:00 - 16:00	Teamwork (working on the Case-study)	Oleksandr Gurbych, Natalia Myronova
16:00 - 17:00	Q&A session for the case-study Mandatory for all teams!	Oleksandr Gurbych

Time	Thursday, 07 July	Lecturer
09:00 - 10:30	Lecture "Risk management"	Denys Bushuiev
10:30 - 10:40	Coffee break	
10:40 - 12:10	Data preprocessing for Machine Learning Ops	Nataliya Shakhovska
12:10 - 13:00	Lunch	
13:00 - 16:00	Teamwork (working on the Case-study)	Olena Verenych, Natalia Myronova
Time	Friday, 08 July	Lecturer
09:00 - 10:30	Lecture on the "Introduction to Apache Spark"	Natalia Myronova
10:30 - 10:40	Coffee break	
10:40 - 12:10	Workshop on the "Introduction to Amazon Elastic MapReduce and Google Cloud Platform: DataProc"	Natalia Myronova
12:10 - 13:00	Lunch	
13:00 - 16:00	Presentation of the case-study results (10-15 minutes for each team + feedback) Mandatory for all teams!	Oleksandr Gurbych
16:00 - 16:15	Closing	