

## CERTIFICATE

## Oleksandr Shapar

has participated in the

Wildau-Kharkiv IT Bridge II

in the DAAD programme

"Digital Ukraine: Ensuring academic success in times of crisis (2023)"

in winter semester 2023

and achieved the following grade:

(details on the rear side)

Designing high-load data storage systems (Bachelor)

89 %

Prof. Dr. Marcus Frohme

Prof. Dr. Igor Grebennik

Prof. Dr. Alina Nechyporenko

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## About the Wildau-Kharkiv-IT-Bridge (WKITB)

Wildau-Kharkiv-IT-Bridge (WKITB) is a project in the DAAD programme "Ukraine digital: Ensuring academic success in times of crisis (2023)". WKITB aims to support Ukrainian lecturers and students by providing a digital teaching and learning platform. It brings together 60 lecturers from eight universities in Kharkiv in the field of IT with thousands of students from all over Ukraine.

## **Designing high-load data storage systems**

**Credit Points:** 4 ECTS

**Study program(s):** 122 Computer science

The discipline «Designing high-load data storage systems» is aimed at students acquiring practical skills in creating highly loaded data storage systems in the form of information systems, developing databases and their scaling, creating software components of the server part of the information system and their optimization according to the criterion of minimizing information access time.

Prof., PhD Liudmyla Kolesnyk Kharkiv National University of Radio Electronics

The lecturer is responsible for grading and module content.

This certificate is valid without signature the lecturer.