TOPIC OF A COMPETITION PROMOTING STUDENT ENGAGEMENT IN SCIENTIFIC ACTIVITIES

Topic: Handwritten Digit Recognition Using a Fully Connected Neural Network
Goal: The goal of this project is to develop and train a fully connected neural network capable of recognizing handwritten digits with high accuracy.
Short description (max. 2000 characters): This project focuses on implementing a fully connected neural network to classify handwritten digits from the MNIST dataset. Students will explore key concepts of supervised learning, data preprocessing, model architecture design, and optimization techniques. The project involves building a neural network from scratch or using standard machine learning frameworks, training the model, and analyzing its performance through accuracy metrics and visualizations. By completing this task, students will deepen their understanding of neural networks and acquire hands-on skills applicable to more advanced machine learning tasks.
Supervisor researcher/lecturer: prof. dr. Dmitrij Šešok