

Training of Future Computer Science Teachers Based on Machine Learning Methods

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Abstract : The article highlights and describes the characteristic features of real-time face detection in images and videos using machine learning algorithms. Students of educational programs reviewed the research work "6B01511-Computer Science", "7M01511-Computer Science", "7M01525- STEM Education," and "8D01511-Computer Science" of Eurasian National University named after L.N. Gumilyov. As a result, the advantages and disadvantages of Haar Cascade (Haar Cascade OpenCV), HoG SVM (Histogram of Oriented Gradients, Support Vector Machine), and MMOD CNN Dlib (Max-Margin Object Detection, convolutional neural network) detectors used for face detection were determined. Dlib is a general-purpose cross-platform software library written in the programming language C++. It includes detectors used for determining face detection. The Cascade OpenCV algorithm is efficient for fast face detection. The considered work forms the basis for the development of machine learning methods by future computer science teachers.

Keywords : algorithm, artificial intelligence, education, machine learning

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