

Uniform AI Detection System

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Abstract: *Maintaining school uniforms is very important for discipline, safety and an efficient academic environment. This work proposes an AI driven system that enables automatic determination of student dress adherence to institution specific dress codes. A convolutional neural network (CNN) trained on a variety of compliant and non-compliant clothes images is employed in the proposed solution. The trained model is embedded in a web-based framework rich with functionality that supports real-time monitoring and digital records. Experimental results show that the CNN yields above 90 test accuracy, performing similar to the current state-of-the-art methods. The final solution provides an end-to-end working prototype with accurate image classification capabilities and a web-based dashboard. The experimental results demonstrate that our deep learning method can automate the checker verification process for uniform compliance evaluation, which would effectively reduce a lot of manual works and human errors. The paper ends by discussing their current limitations and possible future improvements.*

Keywords: *school uniforms*

