

عنوان مقاله:

A Novel Approach to Communicate with Video Game Character using Cascade Classifiers

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خلاصه مقاله:

Today, video games have a special place among entertainment. In this article, we have developed an interactive video game for mobile devices. In this game, the user can control the game's character by his face and hand gestures. Cascading classifiers along with Haar-like features and local binary patterns are used for hand gesture recognition and face detection. The game's character moves according to the current hand and face state received from the frontal camera. Various ideas are used to achieve the appropriate accuracy and speed. Unity 3D and OpenCV for Unity are employed to design and implement the video game. The programming language is C#. This game is written in C# and developed for both Windows and Android operating systems. Experiments show an accuracy of ۸۶.۴% in the detection of five gestures. It also has an acceptable frame rate and can run at ۱۱ fps and ۸ fps in Windows and Android .respectively

کلمات کلیدی:

Interactive game, mobile game, hand gestures recognition, Face recognition, cascading classifiers

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