

# Smart Mirror Activated by User's Face Recognition with Simulation of Artificial Intelligence Classifier

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**Abstract**— This paper presented a simple and easy-to-use intelligent mirror with the activated function by face recognition. Firstly, the function of face recognition was realized by the OpenMV platform, and the recognition information was transmitted to the main controller, i.e., Loongson 1C Zhilong development board. The main controller connected to the Django server through the distant communication function of ESP8266 module. The user's schedules were acquisitioned by such a communication pathway and analyzed by the main controller. Finally, the recognized user's business or traveling schedule was shown on a screen located in the rear of a semitransparent mirror. For strangers of this smart mirror, the successful rate of strangers was 100%. For the user, the successful rate of strangers was 90% and accuracy of user's recognition was 100% in 120 times of tests. Furthermore, Adaptive Neuro Fuzzy Inference System supports a nice performance for Automatic classification in computer simulation. The COVID-19 pandemic is still threatening human beings. A smart mirror with the function of face recognition activation is a non-touching solution for avoiding the infections to support an idea for elevating human health.

**Keywords**—Loongson, RT thread, real-time operating system, OpenMV, wireless transmission, AI, ANFIS



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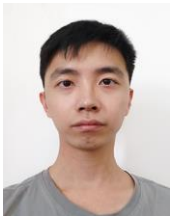
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