

## ABSTRACT

### STUDENT ATTENDANCE APPLICATION USING FACE VALIDATION AND BASE LOCATION BASED ON ANDROID

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Student attendance is an activity carried out by students to prove themselves present in learning activities. The attendance of Informatics Engineering students at the Darmajaya Institute of Informatics and Business runs using a website. By knowing the username and password the user can enter the e-learning website. This can cause problems, namely allowing fraud during attendance. The solution to this problem is to create an Android-based application that is equipped with security as an alternative. In this study, face and base location validation was applied by utilizing the Tensorflow Lite model and the Fused Location provider client model. The Tensorflow Lite model that was trained and was able to recognize student faces well and was able to show a match percentage of up to 90%. Base location detects the device's last location to determine the position of a student. The use of face validation and base location provided specific identification of who and where students are when they are absent.

Keywords: Attendance, Teachable Machine, Base Location, Tensorflow Lite, Android.

