OMBRÉ: A MACHINE LEARNING-BASED FASHION MOBILE APPLICATION FOR CLASSIFYING APPAREL COMBINATIONS

An Undergraduate Thesis

Presented to the Faculty of the

College of Information and Communications Technology

West Visayas State University

La Paz, Iloilo City

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Information Technology

by

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JUNE 2024

Approval Sheet

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# Abstract

Wardrobe range due to a lack of fashion sense is a relevant issue in the field of fashion. There is always a struggle to match clothes on certain occasions or find what clothes are suitable for an event. With this problem, the researchers proposed creating a mobile application to assist users in classifying combined apparel. The researchers utilized a Convolutional neural network to classify user outfits according to events to predefined events, namely: urban adventure, active adventure, business formal, and business casual. The application has a built-in camera, and the user can also upload. Furthermore, the application also implemented a user preference module. The module was used to complete the process of the recommendation feature. The mobile application will provide recommendations based on the event, color, type, and pattern. The evaluation of the suggested application was conducted, and it obtained an 81.5% approval through the ISO 25010:2023 assessment tool by IT experts. Furthermore, the TAM analysis yielded a comprehensive 90.6% approval, with PU, PEU, and BI attaining a "very satisfactory" rating. This indicates a notable level of excitement and interest in adopting our application, which utilizes machine learning for apparel classification and provides personalized recommendations.

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