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ABSTRACT

The Kingdom of Saudi Arabia, embraces a diverse spectrum of historical culture and heritage. Aligned with Vision 2030 and the rise in global tourism, we aim to increase cultural awareness and preserve our heritage through a mobile application.

Our app uses deep learning to showcase Saudi Cultural Heritage, making it accessible and engaging. Users can capture or upload photos of sites like the Masmak Palace, which are then analyzed to provide detailed information. This interactive experience allows for independent exploration, fostering pride in Saudi heritage and preserving it for future generations.

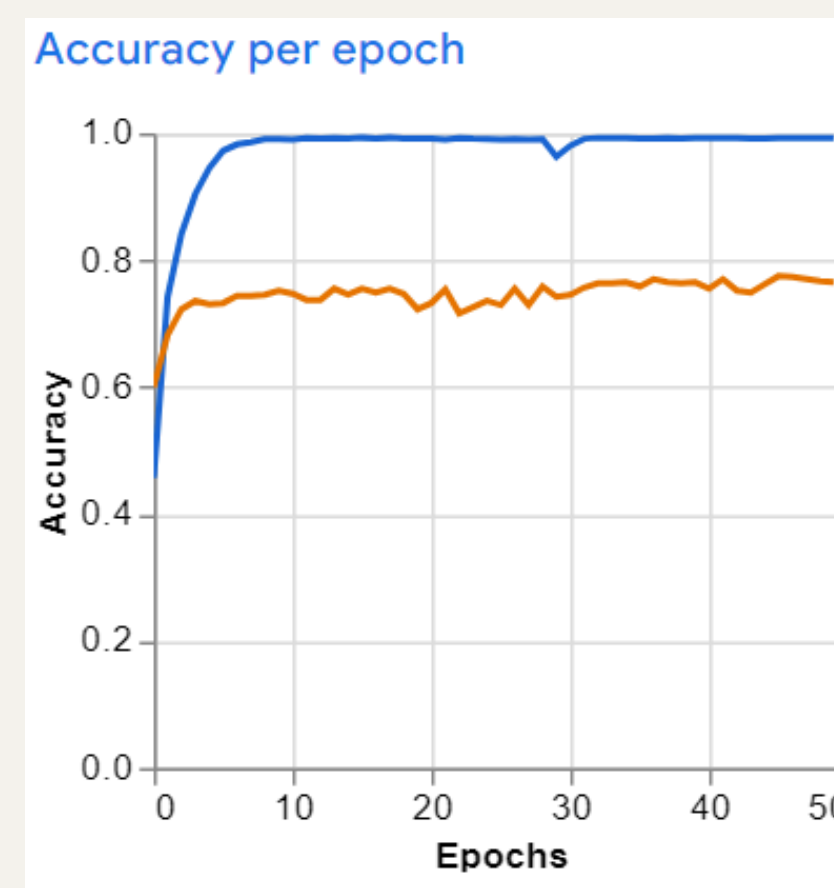
OBJECTIVES

Transforming traditional tourism and learning about antiquities.

Digital archiving to protect heritage from extinction.

Increase knowledge and awareness of Saudi heritage.

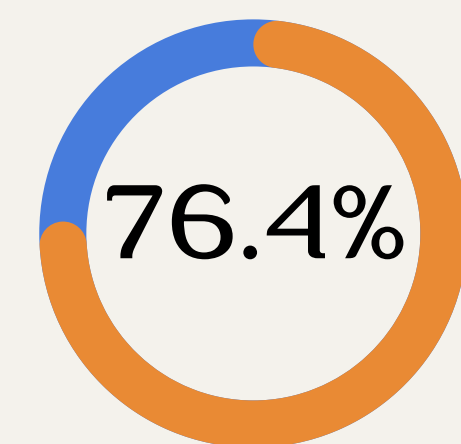
RESULTS



Training Accuracy: accuracy quickly reaches near 98%, indicating the model predicts the training data with high accuracy.

Test Accuracy: Validation accuracy stabilizes around 80%, suggesting effective generalization. Variations may be due to test data noise.

Model Accuracy



INTRODUCTION

Cultural heritage encompasses places, tangible assets, practices, expressions, knowledge, and skills symbolizing a country's cultural identity. This project aims to provide an interactive experience for learning about Saudi Arabia's national heritage, focusing on images of urban heritage and antiques. Users can capture or upload photos of these heritage sites, which will then be analyzed to provide detailed information.

CONCLUSION


Aseel developed an educational app promoting Saudi history using computer vision technology. We achieved a 76.415% accuracy rate in classifying Saudi heritage photos, including urban and antiquities. This initiative paves the way for future heritage research and development.

METHODOLOGY

TensorFlow.JS CNN MobileNet ImageNet



TOOLS



Future Work

Interactive activities

Chatbot

Multilingual support

Covering more heritage

INTERFACE



DEMO



REFERENCES



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