Informatics Institute of Technology In Collaboration with University Of Westminster



Phaedra Image Enhancement on Real Time Quality Assesed Images

A Dissertation by

Mr Amresh Jayakumar

Supervised by

Ms. Ganesha Thondilege

May 2023

Submitted in partial fulfilment of the requirements for the BSc (Hons) in Computer Science degree at the University of Westminster, UK

Phaedra

ABSTRACT

Beginner mobile photographers and amateur mobile photographers face the constant

problem of not being able to take good quality mobile images if they are not well

versed in the aspect of photography and if they do not possess an understanding of

how the photography triangle works. Furthermore, as they are just starting out, they

face the bigger issue of understanding the necessary aspects of the captured image and

what needs to be enhanced and how the specific type of image must be

enhanced/edited to reach a better audience.

As users face the issue of capturing better quality images, the author hopes to solve

this problem by providing a comprehensive solution via mobile application that

addresses the issues of image analysis and enhancement when it comes to captured

images. By integrating image classification, metadata extraction, image enhancement

options, and LUT options, the author aims to deliver a user-friendly and accessible

solution that addresses the challenges of improving image quality on mobile devices.

The solution being a mobile first approach sets this application apart as current

competitors are mostly desktop applications.

The solution offered by the author is a mobile application that addresses the issues of

image analysis and enhancing images for the beginner and amateur mobile

photographers. The proposed application makes use of the latest and in-trend

techniques for image classification, metadata extraction, and image enhancement to

provide the user of the most accurate output. The result of the research is an

application that offers users a convenient and effective way to analyze and enhance

their images, helping them to achieve better image quality.

Keyword: Image Classification, Image Enhancement, Image Identification, Image

Based

Subject Descriptors:

Applied computing \rightarrow Arts and humanities \rightarrow Media arts \rightarrow High Relevance

Amresh Jayakumar ii