**Age and Gender Prediction with Convolutional Neural Networks using OpenCV**

(Python Implementation)

BY:

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DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE FACULTY OF NATURAL & APPLIED SCIENCE UMARU MUSA YAR’ADUA UNIVERSITY KATSINA

DECEMBER, 2019

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A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE, FACULTY OF NATURAL & APPLIED SCIENCE, UMARU MUSA YAR’ADUA UNIVERSITY KATSINA, KATSINA, NIGERIA

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE BACHELOR OF SCIENCE (HONOURS) DEGREE IN COMPUTER SCIENCE

DECEMBER, 2019

**Certification**

This is to certify that I am responsible for the work submitted in this Project, that the original work is mine, except as specified in acknowledgment and references and that neither the project nor the original work contained therein has been submitted to this University or any other institutions for the award of a degree.

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**APPROVAL**

This project, entitled "**Age and Gender prediction with Convolutional Neural Networks using OpenCV"**, has been approved for the Department of Mathematics & Computer Science, Faculty of Natural & Applied Science, Umaru Musa Yar’adua University Katsina, Katsina, Nigeria.

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**DEDICATION**

**ACKNOWLEDGMENT**

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**ABSTRACT**

In the past few years, human facial age and gender estimation has drawn a lot of attention in the computer vision and pattern recognition communities because of its important applications in age-based image retrieval, security control and surveillance, biometrics, human-computer interaction (HCI) and social robotics. In connection with these investigations, estimating the age and gender of a person from the numerical analysis of his/her face image is a relatively new topic. Also, in problems such as Image Classification the Deep Neural Networks have given the best results in some areas including age and gender estimation.