REGIONAL WRITING SYSTEM PARITTA AND DHAMMAPADA APP WITH CHARACTER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK ON TENSOR FLOW LITE

By

Adi Putra Jaya

001202000032

A Final Project

Submitted to the Faculty of Computing

President University

in Partial Fulfilment of the Requirements

For the Degree of Bachelor of Science in Information Technology

Cikarang, Bekasi, Indonesia

June 2023

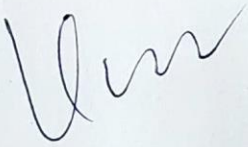
PANEL OF EXAMINER APPROVAL

The Panel of Examiners declare that the undergraduate thesis entitled **REGIONAL WRITING SYSTEM PARITTA AND DHAMMAPADA APP WITH CHARACTER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK ON TENSOR FLOW LITE** that was submitted by **ADI PUTRA JAYA** majoring in **Informatics** from the Faculty of Computer Science was assessed and approved to have passed the Oral Examination on Thursday June 8, 2023.

Panel of Examiner

RUSDIANTO ROESTAM

Chair of Panel Examiner



RIKIP GINANJAR

Examiner I

STATEMENT OF ORIGINALITY

In my capacity as an active student of President University and as the author of the thesis/final project/business plan (underline that applies) stated below:

Name : Adi Putra Jaya

Student ID number : 001202000032

Study Program : Information Technology

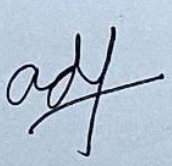
Faculty : Computing

I hereby declare that my final project entitled "Regional Writing System Paritta and Dhammapada App with Character Classification using Convolutional Neural Network on Tensor Flow Lite" is to the best of my knowledge and belief, and original piece of work based on sound academic principles.

If there is any plagiarism, including but not limited to Artificial Intelligence plagiarism, is detected in this final project, I am willing to be personally responsible for the consequences of these acts of plagiarism, and accept the sanctions against these acts in accordance with the rules and policies of President University.

I also declare that this work, either in whole or in part, has not been submitted to another university to obtain a degree.

Cikarang, June 2023



(Adi Putra Jaya)

SCIENTIFIC PUBLICATION APPROVAL FOR ACADEMIC INTEREST

As an academic community member of the President's University, I, the undersigned:

Name : Adi Putra Jaya

Student ID number : 001202000032

Study program : Information Technology

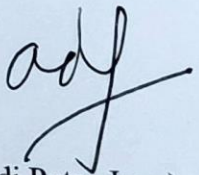
for the purpose of development of science and technology, certify, and approve to give President University a non-exclusive royalty-free right upon my final report with the title:

REGIONAL WRITING SYSTEM PARITTA AND DHAMMAPADA APP WITH CHARACTER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK ON TENSOR FLOW LITE

With this non-exclusive royalty-free right, President University is entitled to converse, to convert, to manage in a database, to maintain, and to publish my final report. There are to be done with the obligation from President University to mention my name as the copyright owner of my final report.

This statement I made in truth.

Cikarang, June 2023



(Adi Putra Jaya)

ADVISOR APPROVAL FOR JOURNAL/INSTITUTION'S REPOSITORY

As an academic community member of the President's University, I, the undersigned:

Name	: Nur Hadisukmana, M.Sc
NIDN	: 0423076302
Study Program	: Information Technology
Faculty	: Computing

declare that following thesis:

Title of Thesis	: Regional Writing System Paritta and Dhammapada App with Character Classification using Convolutional Neural Network on Tensor Flow Lite
Thesis Author	: Adi Putra Jaya
Student ID Number	: 001202000032

will be published in ~~**journal**~~ / **institution's repository** / ~~**proceeding**~~ / ~~**unpublish**~~ /.....(underline that applies)

Cikarang, June 2023

(Nur Hadisukmana, M.Sc)

[Final] REGIONAL WRITING SYSTEM PARITTA AND DHAMMAPADA APP WITH CHARACTER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK ON TENSOR FLOW LITE

ORIGINALITY REPORT

11%	7%	3%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Bellevue Public School Student Paper	1%
2	www.coursehero.com Internet Source	1%
3	Submitted to Universiti Teknologi Malaysia Student Paper	<1%
4	Submitted to Chandigarh Group of Colleges Student Paper	<1%
5	www.geeksforgeeks.org Internet Source	<1%
6	Submitted to University of Hertfordshire Student Paper	<1%
7	Submitted to Nottingham Trent University Student Paper	<1%
8	Submitted to City University of Hong Kong Student Paper	<1%

Stats

Average Perplexity Score: 102.929

A document's perplexity is a measurement of the randomness of the text

Burstiness Score: 75.194

A document's burstiness is a measurement of the variation in perplexity

Your sentence with the highest perplexity, *"ii DEDICATION In dedication of my final project to Three Jewels whic"*, **has a perplexity of: 300**

ABSTRACT

Globalization is the mainstream of this era in 21st century characterized by rapid development of information technology. People now can access readily available information on internet much faster than before with smartphone which can be brought anywhere and easy to use. Not just for accessing information, smartphone can be used for various activities, such as playing games, watching movies, listening music, online shopping, studying, or even for religious and customs purposes all thanks to the wide range of application made by various developer. Owing to such positive effect, globalization also has made people integrated more rapidly and globally, hence more and more people especially in Indonesia are disregarding and even forgetting its own traditional culture.

This paper will discuss the development and usage of an application as form of an e-book to help Buddhist to pay respect and take refugee to Buddha by chanting Dhamma also to learn the meaning of it in an appropriate place and time also to make Buddhist in Indonesia remember their culture through the usage of regional writing system. The application will be made multi-platforms with Android as its main supported platform with an innovative feature such as control panel for different customization of fonts, chanting sound of verse, favourite, search features, and intelligent Javanese character classification recognition feature using convolutional neural network with a simple, but attractive and modern user interface design.

ACKNOWLEDGMENT

Praise to be to Sanghyang Adi Buddha for His blessing so I can complete my final project. Through three years of study in President University, I have got numerous knowledges, both soft skills and hard skills, also support from my surrounding so much that I can work on this project. Those supports are from:

1. My family, especially my father for giving me opportunity to study at President University.
2. My final project advisor for his advices, guidance and also approval so I can work and finish this final project.
3. Lecturers of President University both Computing and non-Computing for which I got a lot of useful knowledge.
4. My foster mother, first internship colleague, and travel service which inspired and helping me to decide main theme regarding my final project.
5. KMB Ashokavardhana, a CnC in President University which became my second family in campus and also place to turns to.
6. PT Len Industri (Persero) which gives me place and opportunity to finish my final project while doing internship.

I would like to express my sincere gratitude for all of those supports which became my reason for me to completing final project.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES