



Live On-Screen Japanese Translation with Optical Character Recognition Mobile Application

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Komputer**

By:

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**FACULTY OF COMPUTING
INFORMATICS STUDY PROGRAM
CIKARANG
FEBRUARY, 2023**

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Live On-Screen Japanese Translation with Optical Character Recognition Mobile Application

By

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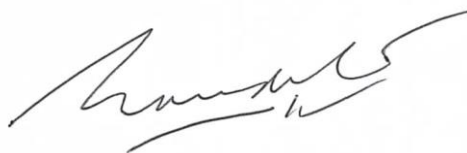
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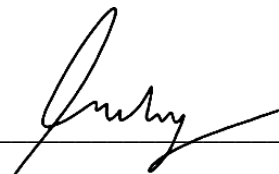
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ABSTRACT

Languages are a tool of communication used by humans. Languages are used by human as a main form of communication within a community. By learning a language, being able to communicate with others who speaks that language might prove to be beneficial, be it in a business, technological, or even in a cultural context. Being able to speak a foreign language also allows one to connect with the native speakers of said language, which possibly unlock a whole new side of the world.

There are a significant number of languages used throughout different places and times, with it comes its own writing system. Some uses the widely known Latin alphabets, such as English and Bahasa Indonesia; and some uses logographic characters, such as Japanese and Chinese.

Learning a new language can be especially difficult when said language's writing system uses a logogram, where a written character represents a word. When a learner encounters an unfamiliar logogram, it can be quite exhaustive for the learner to look up the definition of the logogram. To mitigate this predicament, a mobile application is proposed to speed up the rate of looking up logogram definitions. The application was made with Japanese as the target language.

DEDICATION

I would like to dedicate my final project to my ever-supportive family and friends who has supported me in every decision I made and whose support has helped me, whether it be directly or indirectly, in the process of completing this final project.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my advisor, Ms. Cutifa Safitri, Ph.D., who has patiently guided me and helped me during the progress of this final project. Without her guidance and help this final project would not have been possible.

I would like thank my lecturers, whose names I am unable to mention one by one, has given me the foundation of knowledge and wisdom required for me to do this final project. The lectures I have received are fundamental for the completion of this final project and has directed me into the correct path.

In addition, I would like to thank my family for enabling my studies and supported me throughout my history of education. To my mother, who has raised me into the person that I am now and who has supported me in many ways than one. To my late father, whose advises and wisdom I still hold close to this very moment. And to my siblings, whose existence I cherish.

Lastly, I would like to thank my friends who has helped and supported me morally and academically. Their blinding support and belief in me have maintained my spirits and motivation in check.

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The nature of AI-generated content is changing constantly. While we build more robust models for GPTZero, we recommend that educators take these results as one of many pieces in a holistic assessment of student work.

1 CHAPTER I INTRODUCTION 1.1 Background Language is the main system of communication used within the human communities.

The use of a language is much more than just understanding words.

Within a language, there exists a part of the world that are normally inaccessible by those who do not speak its language.

Learning foreign languages allows one to unlock the ability to communicate with the greatest

Stats

Average Perplexity Score: 62.296



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

Burstiness Score: 55.055



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

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CHAPTER V – CHAPTER VII GPTZERO RESULTS

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36 CHAPTER V SYSTEM IMPLEMENTATION 5.1 Application Code Implementations This section will walk through the result of the application's implementation, showing how the application is implemented itself.

The explanation will be simplified and some part of the code snippets will be omitted as to not cram too many information.

Stats

Average Perplexity Score: 107.857

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

Burstiness Score: 218.882

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