IMPLEMENTATION OF REAL-TIME SCANNER JAVA LANGUAGE TEXT WITH MOBILE VISION ANDROID BASED

BACHELOR THESIS

arrangedby

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14.61.0020

UNDERGRADUATE PROGRAM
BACHELOR OF INFORMATICS
FACULTY OF COMPUTER SCIENCE
UNIVERSITY OF AMIKOM YOGYAKARTA
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arranged by

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BACHELOR THESIS

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STATEMENT

I the undersigned declare that this thesis is my own work (ORIGINAL), and the contents in this paper there are works that have been asked by others to obtain an academic degree in a higher education institution anywhere, and my knowledge is not there works or opinions ever written and / or published by others, except that in writing referred to in this text and mentioned in the bibliography.

Everything associated with the script and the work that has been made is the responsibility of my own.

Yogyakarta, 29 August 2017

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MOTTO

“Postera Crescam Laude”

“We shall grow in the esteem of future generations”

DEDICATION

Bismillah hirrahman nirrahim, Alhamdulillahirrabil'alamin, thanks to Allah SWT who has given me grace, guidance, health, and ability, so I can finish this bachelor thesis. On this presentation page, I would like to say many thanks for:

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PREFACE

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Yogyakarta, August 29, 2017

Author

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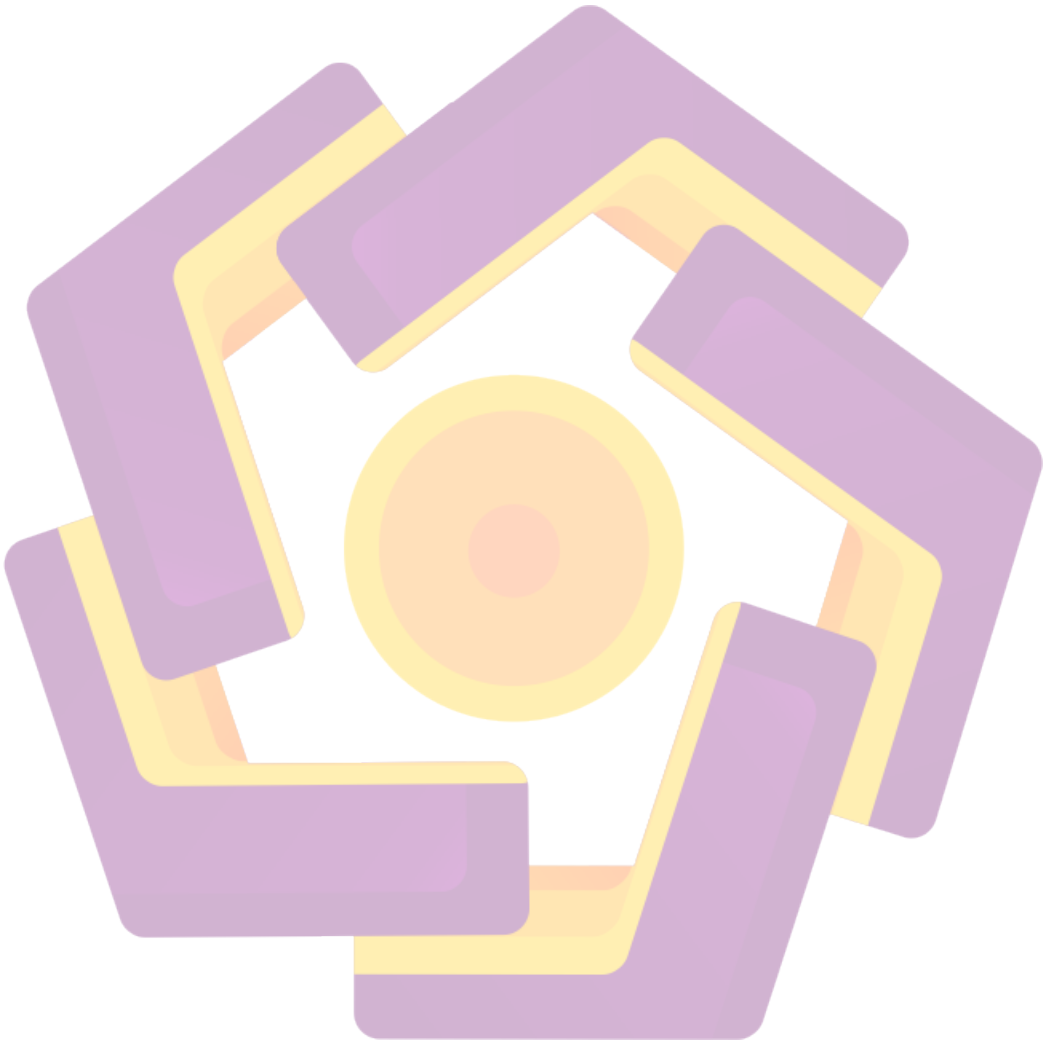
Appendix A Repository Git Project.....1



INTISARI

Saat ini penelitian teknologi di bidang alih bahasa telah merambah hingga pengolahan citra.Salah satu peran pengolahan citra dalam bidang alih bahasa adalah teknologi pengenalan karakter optik pada berbagai perangkat, salah satunya berbasis mobile Android. *Namun, saat ini penelitian pengolahan citra di bidang alih bahasa dengan bahasa daerah asli Indonesia sangat sedikit*.

Dalam penelitian ini, penulis melakukan implementasi pemindai teks latin dengan Bahasa Indonesia menjadi teks Bahasa Jawa dengan Google Mobile Vision *secara* real-time *dan sebaliknya dengan aplikasi berbasis* mobile Android. *Dimana* Google Mobile Vision *merupakan salah satu pustaka* optical character recognition *yang bersifat* open-source *dengan metode* pattern recognition. *Dengan rancangan arsitektur* client server *maka dikembangkan aplikasi Android sebagai* client *dan aplikasi* Web Service *yang dapat mengolah* REST API *dan berinteraksi dengan* database.

Luaran penelitian ini berupa aplikasi alih bahasa yang dapat memindai kata dalam Bahasa Jawa menjadi Bahasa Indonesia, maupun sebaliknya dalam suatu frame *aplikasi* Android. *Dengan penelitian ini diharapkan dapat menjadi* benchmark *untuk penelitian pengolahan citra untuk bahasa daerah asli Indonesia*.

Kata Kunci : *Pengenalan Karakter Optik, Mobile Vision, Android, Arsitektur Client Server, REST API*

ABSTRACT

Currently technological research in the translating has penetrated to image processing. One of the role of image processing in the translating is optical character recognition technology on various platform, an example on Android mobile. However, the current research on image processing of translating with the native regional language of Indonesia still rarely.

In this research, the writer performs the implementation of Latin text translate from Bahasa Indonesia into Javanese text with Google Mobile Vision in real-time, also vice versa with Android mobile based application. Which is Google Mobile Vision is one of the open-source optical character recognition library with pattern recognition method. With the design of client server architecture, the writer develop Android application as client and Web Service application that can process REST API and interact with the database.

The output of this research is an application for translate that can scan words in Javanese into Bahasa Indonesia, or vice versa in frame of an Android application. With this research, it's expected to be the benchmark for image processing research for native regional language of Indonesia.

Keywords :Optical Character Recognition, Mobile Vision, Android, Client Server Architecture, REST API