



PROJECT REPORT
IMPLEMENTATION OF MOVIE RECOMMENDER SYSTEM
ACCURACY BETWEEN MANHATTAN DISTANCE AND EUCLIDEAN
DISTANCE



REINALDO FANUEL ARIEF
16.K1.0057

Informatics Engineering Study Program
Faculty of Computer Science
Soegijapranata Catholic University
2021

HALAMAN PENGESAHAN



Judul Tugas Akhir: : Implementation of Movie Recommender System accuracy between Manhattan Distance and Euclidean Distance

Diajukan oleh : Reinaldo Fanuel Arief

NIM : 16.K1.0057

Tanggal disetujui : 09 Juli 2021

Telah setuju oleh

Pembimbing : R. Setiawan Aji Nugroho S.T., MCompIT., Ph.D

Penguji 1 : R. Setiawan Aji Nugroho S.T., MCompIT., Ph.D

Penguji 2 : Rosita Herawati S.T., M.I.T.

Penguji 3 : Hironimus Leong S.Kom., M.Kom.

Penguji 4 : Y.b. Dwi Setianto

Penguji 5 : Yulianto Tejo Putranto S.T., M.T.

Penguji 6 : Yonathan Purbo Santosa S.Kom., M.Sc

Ketua Program Studi : Rosita Herawati S.T., M.I.T.

Dekan : R. Setiawan Aji Nugroho S.T., MCompIT., Ph.D

Halaman ini merupakan halaman yang sah dan dapat diverifikasi melalui alamat di bawah ini.

sintak.unika.ac.id/skripsi/verifikasi/?id=16.K1.0057

DECLARATION OF AUTHORSHIP

I, the undersigned:

Name : REINALDO FANUEL ARIEF

ID : 16.K1.0057

declare that this work, titled " IMPLEMENTATION OF "MOVIE RECOMMENDER SYSTEM ACCURACY BETWEEN MANHATTAN DISTANCE AND EUCLIDEAN DISTANCE"", and the work presented in it is my own. I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at Soegijapranata Catholic University
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
3. Where I have consulted the published work of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given.
5. Except for such quotations, this work is entirely my own work.
6. I have acknowledged all main sources of help.
7. Where the work is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Semarang, JULY, 9th, 2021



REINALDO FANUEL ARIEF

16.K1.0057

**SCIENTIFIC PUBLICATION STATEMENT PAGE FOR
ACADEMIC INTEREST**

I, the undersigned

Name : Reinaldo Fanuel Arief

NIM : 16.K1.0057

Program : Informatics Engineering

Faculty : Computer Science

Agree to give Soegijapranata Catholic University Semarang the right to non-exclusive royalty free for a scientific work entitled “Movie Recommender System accuracy between Manhattan Distance and Euclidean Distance” along with existing devices. With this Non-exclusive Royalty Free Right, Soegijapranata Catholic University has the right to save, transfer / format media, manage in the form of a database, maintain, and publish this final project as long as I still include my name as the author / creator and as the copyright owner.

Semarang, JULY, 9th, 2021



REINALDO FANUEL ARIEF

16.K1.0057

ACKNOWLEDGMENT

I have received a myriad of support, advice, and assistance throughout this document writing. I would like to thank my supervisors Robertus Aji Nugroho for formulating this topic. I would also like to thank my Teacher in Providence University Taiwan Prof Tien-Hsiung Weng for guiding with advice to finish this document.

I would like to thank my family and friends for giving me ceaseless love, support, and advice throughout my study in Soegijapranata Catholic University. You gave me great escape to rest my mind from my thesis.



ABSTRACT

Movies recommendation system is a very serious matter for people who really enjoys watching a lot of movies and TV shows, every single event happening in a movie streaming services is logged and stored in a database, this include user's activities such as watching a movie.

The goal of this project is to Predict the user's preferences of movie type and favorites .

The evaluation is a benchmark whether the prediction on SVM algorithm have higher accuracy rate than Decision tree or vice-versa depending on the number data and method such as content filtering or collaborative learning.

Keyword: Prediction, Euclidean Distance, Manhattan Distance, Recommender System.

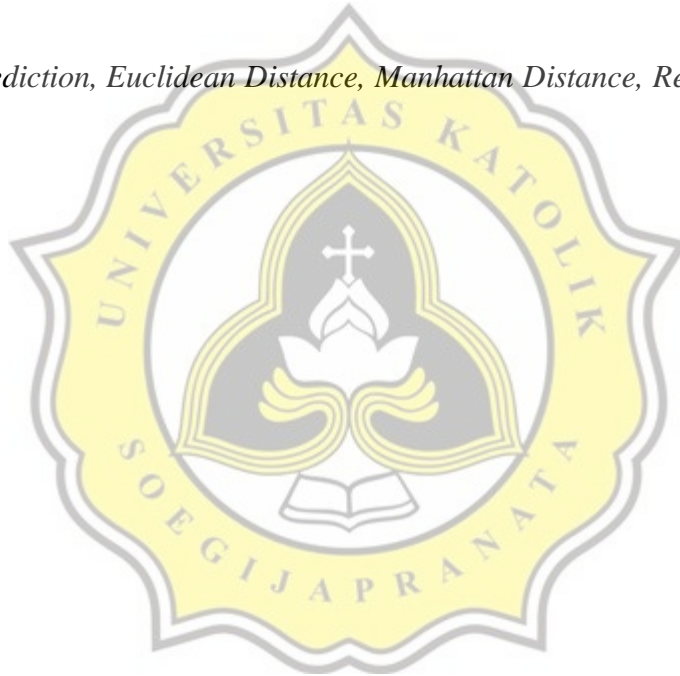


TABLE OF CONTENTS

COVER	i
APPROVAL AND RATIFICATION PAGE (Heading plain)..... Error! Bookmark not defined.	
DECLARATION OF AUTHORSHIP	iii
ACKNOWLEDGMENT	v
ABSTRACT (Abstract Title)	vi
TABLE OF CONTENTS	vii
LIST OF FIGURE	ix
LIST OF TABLE	x
CHAPTER 1 INTRODUCTION	1
1.1 Background.....	1
1.2 Problem Formulation.....	2
1.3 Scope.....	3
1.4 Objective.....	3
CHAPTER 2 LITERATURE STUDY	5
CHAPTER 3 RESEARCH METHODOLOGY	9
CHAPTER 4 ANALYSIS AND DESIGN	12
4.1 Analysis	12
4.1.1 Collecting Data	12
4.1.2 Data Pre processing	12
4.2 Images and Flowchart Design	14
4.3 Tabel.....	17
4.4 Function	17
CHAPTER 5 IMPLEMENTATION AND TESTING	19
5.1 Implementation	19

5.2 Testing	39
CHAPTER 6 CONCLUSION	49
6.1 Conclusion	49
REFERENCES	a
APPENDIX	b



LIST OF FIGURE

Figure 3.1 Netflix Recommender	11
Figure 3.2 Sigmoid Activation Function	11
Figure 4.1.1 Data Pre-Processing or Querying	13
Figure 4.2 Movie Category Chart	14
Figure 4.3 Manhattan Distance	17
Figure 5.1.1 Data Pre-Processing	20



LIST OF TABLE

Table 4.3.1 Distance comparison.....	17
Table 5.2 Comparison Table of 100,836 records.....	46
Table 3 Most rated movies including Star Wars:Episode IV - A New Hope 1997....	47

