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Belagavi, Karnataka-590 018



A
PROJECT REPORT
ON
“K-NEAREST NEIGHBORS ALGORITHM”

Submitted in partial fulfillment of the requirements for the Computer Graphics Laboratory with Mini Project (15CSL68) course of the 6th semester

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING

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CERTIFICATE

This is to certify that the project work entitled “**K-NEAREST NEIGHBORS ALGORITHM**” is a bonafied work carried out by **Mr. PREETHAM D P (1JS15CS074)** and **Mr. SHRAVANTH V Y (1JS15CS095)** in partial fulfillment for the Computer Graphics Laboratory with Mini Project (15CSL68) of 6th semester **Bachelor of Engineering in Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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ABSTRACT

KNN (k-nearest neighbor) is an extensively used classification algorithm owing to its simplicity, ease of implementation and effectiveness. It is one of the top ten data mining algorithms, has been widely applied in various fields. KNN has few shortcomings affecting its accuracy of classification. It has large memory requirements as well as high time complexity. Several techniques have been proposed to improve these shortcomings in literature. In this paper, we have first reviewed some improvements made in KNN algorithm. Then, we have proposed our novel improved algorithm. It is a combination of dynamic selected, attribute weighted and distance weighted techniques. The accuracy of our algorithm is improved with a blend of classification and clustering techniques. Experimental results have proved that our proposed algorithm performs better than conventional KNN algorithm.

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Table of Contents

Chapter Title	Page No.
Abstract	i
Acknowledgment	ii
Contents	iii
List of Figures	v
Chapter 1 Introduction	1
1.1 Introduction to Computer Graphics	1
1.2 History of Computer Graphics	3
1.3 Applications of Computer Graphics	4
1.4 Open Graphics Library (OpenGL)	5
1.5 OpenGL Utility Library (GLU)	6
1.6 OpenGL Utility Toolkit (GLUT)	6
1.7 OpenGL Rendering Pipeline	9
1.8 Applications of OpenGL	12
1.9 OpenGL primitives	12
1.10 Introduction to Selective repeat ARQ protocol	13
1.11 Objectives of The Project	14
1.12 Organization of The Report	14
1.13 Summary	15
Chapter 2 System Specifications	16
Chapter 3 K-NEAREST NEIGHBORS ALGORITHM (K-NN)	17
Chapter 4 System Design and Implementation	20
4.1 Introduction	20
4.2 Initialization	20
4.3 Flow of Control	20
4.4 OpenGL API's used	22
4.5 Pseudo codes/Algorithms	24
Chapter 5 Results & Discussions	25
Chapter 6 Conclusion & Future Enhancements	35
References	36

List of Figures

Figure No.	Name of Figure	Page No
1.1	Graphics Pipeline	2
1.2	Library organization of OpenGL API's	8
1.3	OpenGL Rendering Pipeline	11
1.4	OpenGL Geometric Primitives	13
3.1	Training datasets	17
3.2	Testing datasets	18
4.1	Project Design	21
5.1	Home Screen	25
5.2	Right Click Menu	26
5.3	Grid Enables	27
5.4	Visual Representation of the training data points	28
5.5	Visual Representation of the testing data which user will enter	29
5.6	Calculation of Euclidian distance	30
5.7	Another way to see how algorithm works	31
5.8	The output.	32
5.9	Initial user input and output.	33
5.10	Another Example	34