

Controlling Mouse Pointer Using Hand Gesture

Project report submitted

In partial fulfilment of the requirements of the degree of

Bachelor of Science

In

Data science (Hons)

By

Pawan Kumar Giri

Under the Supervision of

Ms Pallavi Pandey



SCHOOL OF ENGINEERING AND TECHNOLOGY

K R MANGALAM UNIVERSITY, GURUGRAM, HARYANA,

INDIA

JUNE 2022

Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

CERTIFICATE

It is certified that the work contained in the project report titled "Controlling Mouse Using Hand Gesture" by the following students:

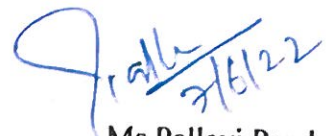
Name of the Student

Roll Number

Pawan Kumar Giri

1901840001

has been carried out under my/our supervision and that this work has not been submitted elsewhere for a degree.



Ms Pallavi Pandey,

Assistant Professor,

School of Engineering and Technology,

K R Mangalam University, Gurugram, Haryana, India



Registrar

K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

ACKNOWLEDGEMENT

It gives me immense pleasure to express my deepest sense of gratitude and sincere thanks to my highly respected and esteemed guide **Pallavi Pandey, SOET**, for his/their valuable guidance, encouragement and help for completing this work. His/Their useful suggestions for this whole work and co-operative behaviour are sincerely acknowledged.

I would like to express my sincere thanks to **Dr./Mrs Shweta Bansal**, KRMU for giving me this opportunity to undertake this project. I would also like to thank **Dr. /Mr. Ashwani sir** for whole hearted support.

I also wish to express my indebtedness to my parents as well as my family member whose blessings and support always helped me to face the challenges ahead.

At the end I would like to express my sincere thanks to all my friends and others who helped me directly or indirectly during this project work.

Place: Gurugram

Pawan Kumar Giri

Date:

1901840001

Registrar

K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

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Registrar
K.R. Mangalam University
Saha Road, Gurugram, (Haryana)

Online Food Ordering System

Project report submitted

In partial fulfilment of the requirements of the degree of

Bachelor of Science

in

Data Science

by

Gaurav Tripathi (1901840003)

Under the Supervision of

Ms. Pallavi Pandey



SCHOOL OF ENGINEERING AND TECHNOLOGY

K R MANGALAM UNIVERSITY, GURUGRAM, HARYANA, INDIA

June, 2022

Registrar

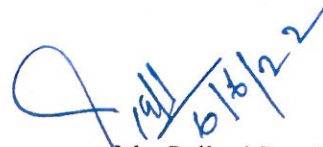
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CERTIFICATE

It is certified that the work contained in the project report titled "Online Food Ordering System" by the following students:

Name of the Student	Roll Number
Darshit Raghav	1901720002
Gaurav Tripathi	1901840003

has been carried out under my/our supervision and that this work has not been submitted elsewhere for a degree.



Ms. Pallavi Pandey,

Assistant Professor,

School of Engineering and Technology,

K R Mangalam University, Gurugram, Haryana, India



Registrar

K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

(Name of the students)

(Roll No.)

(Signature)

Darshit Raghav

1901720002



Gaurav Tripathi

1901840003



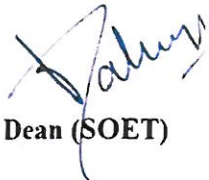
Date: _____



Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

APPROVAL SHEET

This project report entitled **Online Food Ordering System** by **Gaurav Tripathi** is approved for the degree of **B.Sc. in Data Science, School of Engineering and Technology**.



Dean (SOET)

Dr. Vineet Dahiya



Supervisor

Ms. Pallavi Pandey

Date : _____

Place: K.R. Mangalam University, Gurugram, Haryana



Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

Controlling Mouse Pointer Using Hand Gesture

Project report submitted

In partial fulfilment of the requirements of the degree of

Bachelor of Science

In

Data science (Hons)

By

Ishvak Sud

Under the Supervision of

Ms Pallavi Pandey



SCHOOL OF ENGINEERING AND TECHNOLOGY

K R MANGALAM UNIVERSITY, GURUGRAM, HARYANA,

INDIA

JUNE 2022

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K. R. Mangalam University
Banna Road, Gurugram, (Haryana)

CERTIFICATE

It is certified that the work contained in the project report titled "Controlling Mouse Using Hand Gesture" by the following students:

Name of the Student

Roll Number

Ishvak Sud

1901840002

has been carried out under my/our supervision and that this work has not been submitted elsewhere for a degree.



Ms Pallavi Pandey,

Assistant Professor,

School of Engineering and Technology,

K R Mangalam University, Gurugram, Haryana, India



Registrar

K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

ACKNOWLEDGEMENT

It gives me immense pleasure to express my deepest sense of gratitude and sincere thanks to my highly respected and esteemed guide **Pallavi Pandey, SOET**, for his/their valuable guidance, encouragement and help for completing this work. His/Their useful suggestions for this whole work and co-operative behaviour are sincerely acknowledged.

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Place: Gurugram

Ishvak Sud

Date:

1901840002


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K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

ABSTRACT

This project promotes an approach for the **Human Computer Interaction (HCI)** where cursor movement can be controlled using a real-time camera, it is an alternative to the current methods including manual input of buttons or changing the positions of a physical computer mouse. Instead, it utilizes a camera and computer vision technology to control various mouse events and is capable of performing every task that the physical computer mouse can.

The **Virtual Mouse** colour recognition program will constantly acquiring real-time images where the images will undergone a series of filtration and conversion. Whenever the process is complete, the program will apply the image processing technique to obtain the coordinates of the targeted colours position from the converted frames. After that, it will proceed to compare the existing colours within the frames with a list of colour combinations, where different combinations consist of different mouse functions. If the current colours combination found a match, the program will execute the mouse function, which will be translated into an actual mouse function to the users' machine.

After getting coordinates of fingers, we will look for the configuration like we have just one finger or two or more than two.

- i. If we have just one finger then our model will use it to just scroll around the screen.
- ii. If we have two finger at some distance 'x' which is less than or equal to set threshold value then our model will execute the 'click' operation.
- iii. Else for all other cases there will be no effect.



Registrar

K.R. Mangalam University
Sohna Road, Gurgaon, (Haryana)

Heart Stroke Prediction using Machine Learning

Project report submitted

In partial fulfilment of the requirement for the degree of

**Bachelor of Science
In
School of Engineering and Technology
By**

Nitin Kumar (2001840003)

Rohit Kumar (2001840008)

**Under the guidance of
Dr. Meenu Vijarania**



Department of SOET

**K. R. Mangalam University, Gurugram – 122003
Date – June 2023**

**Registrar
K. R. Mangalam University
Sohna Road, Gurugram, (Haryana)**

DECLARATION

We declare that this written submission represents our ideas in our own words and where other's ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all the principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed. We further declare that if any violation of the intellectual property right or copyright, my supervisor and university should not be held responsible for the same.

Student Name	(Roll No.)	(Signature)
Nitin Kumar	2001840003	
Rohit Kumar	2001840008	

Place: K.R Mangalam University



Registrar

K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)



CERTIFICATE

It is certified that the work contained in the project report titled "Heart Stroke Prediction using Machine Learning" by the following students:

Name of the Students:

Nitin Kumar (2001840003)

Rohit Kumar (2001840008)

has been carried out under our/my supervision and that this work has not been submitted elsewhere for a degree.

Meenu
08/6/23

Signature of Supervisors

DEAN
School of Engineering & Technology (SOET)
K.R. Mangalam University
Sohna road, Gurugram
Haryana 122103

Name of the Supervisor/s

Dr. Meenu Vijarania

Designation

Date: - June 2023

Place: - K.R. Mangalam University

Meenu

Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

ACKNOWLEDGEMENT

**“Enthusiasm is the feet of all progress, with it there is accomplishment and
Without it there are only slit alibis.”**

Acknowledgment is not a ritual but is certainly an important thing for the successful completion of the project. At the time when we were made to know about the project, it was really tough to proceed further as we were to develop the same on a platform, which was new to us. More so, the coding part seemed so tricky that it seemed to be impossible for us to complete the work within the given duration.


We really feel indebted in acknowledging the organizational support and encouragement received from the university.

The task of developing this system would not have been possible without the constant help of our faculty members and friends. We take this opportunity to express our profound sense of gratitude and respect to those who helped us throughout the duration of this project.

We express our gratitude to our supervisors Dr. Meenu Vijarania for giving their valuable time and guidance to us.

Place: - K.R. Mangalam University

Name of Student
Nitin Kumar
Rohit Kumar


Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

IPL DATA ANALYSIS

Project report submitted

In partial fulfillment of the requirement of the degree of

Bachelor of Science

In

Data Science

By

Rohit (2001840006)

Under the Supervision of

Mrs. Jyoti Kataria

Asst. Professor, SOET Department



SOET DEPARTMENT

**K.R MANGALAM UNIVERSITY, GURUGRAM,
HARYANA INDIA,**

June,2023

Jyoti
Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will cause disciplinary action by the Institute and can also invoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.



Rohit

(2001840006)



Registrar
K.P. Mangalam University
Sahra Road, Gurugram, (Haryana)



CERTIFICATE

This is to certify that major project report entitled " IPL DATA ANALYSIS" is submitted by "Rohit" in Partial Fulfilment of the requirements for the award of "Bachelor of Science (Hons) Data Science" branch during the academic year 2020-2023 from "K.R Mangalam University, Sohna, Gurugram", It is a record of his own work carried by him under my guidance and supervision. To the best of my knowledge, the matter presented in this major project is original work and has not been submitted anywhere for the award of any other diploma or degree certificate.

UNDER THE GUIDANCE OF



Mrs. Jyoti Kataria,
Assistant Professor,

School of Engineering & Technology,
K.R Mangalam University, Gurugram, Haryana, India



Registrar
K.R. Mangalam University
Sohna Road, Gurugram, (Haryana)

APPROVAL SHEET

This project report entitled "IPL DATA ANALYSIS" by Rohit is approved for the degree of Bachelor of Science (Hons) Data Science, School of Engineering and Technology.



Dean (SOET)

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Haryana 122103



Supervisor

Mrs. Jyoti Kataria
Assistant Professor (SOET)



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Sohna Road, Gurugram, (Haryana)

Date: June 8, 2023

Place: Gurugram