INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

"Web Scraping Google Maps For Data Collection"

Submitted in partial fulfillment
of III SEMESTER
MSC DATASCIENCE

As prescribed by
INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

ARYA S KUMAR
(22IAMOS119)

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled **"Web Scraping Google Maps For Data Collection"** is bonafide work done by **ARYA S KUMAR (22IAMOS119)**, submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
Department of Computer Science
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Examiners
1.
2.
Date:

HEAD OF THE DEPARTMENT
Mrs. ANURADHA. P
Head
Department of Computer Science
Indian Academy Degree College
Hennur Cross, Hennur Main Road
Bangalore-560043

Date: 02nd January,2024

To Whomsoever It May Concern

Signpost India Limited hereby acknowledges the completion of the internship program by **Arya S Kumar(Reg No:22IAMOS119)**, a M.Sc Data Science Student from **Indian Academy Degree College – Autonomous, Bangalore.** During her time with the Data Science and Data Analytics team, Arya has shown commendable proficiency and a systematic approach in her work.

Arya demonstrated exceptional technical proficiency in executing the project "Web Scraping Google Maps for Data Collection." Leveraging Python and Selenium, she developed a robust script for extracting comprehensive information from Google Maps. Arya gained hands-on experience in dynamic web content, meticulous data extraction, error handling, and efficient CSV-based data management

This certificate recognizes Arya's consistent efforts and professional commitment during her internship. The experience and knowledge she has gained here are expected to serve her well in her ongoing career in Data Science and Data Analytics.

We wish Arya S Kumar success in her future professional endeavors.
Internship Duration: 27-November,2023 to 30-December,2023

Syed Khadarvalli
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal, Dr. N. Thilaka, who gave opportunity to do the Internship and completed it successfully. I am very much thankful.

I would like to express my special thanks to our H.O.D (Dept. of Computer Science) Mrs. Anuradha. P, for providing constant support and cooperation during the internship.

I would also like to thank my parents and friends who helped me a lot in finalizing this internship report.

ARYA S KUMAR
22IAMOS119

INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

"Analysis of Cancer data using Apache Superset"

Submitted in partial fulfillment of

III SEMESTER MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE
AUTONOMOUS

Developed by

STUDENT NAME	REG NO
MADDIPATI SAI SANTHOSH NIKHIL	22IAMOS120

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the **Internship entitled "ANALYSIS OF CANCER DATA USING APACHE SUPERSET"** is a bonafide work done by **MADDIPATI SAI SANTHOSH NIKHIL (Reg no. 22IAMOS120)** submitted in partial fulfillment of III SEMESTER MSC DATA SCIENCE during the academic year 2023-2024

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1. 19/4/24
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HEAD OF THE DEPARTMENT
Mrs. Anuradha.P
Head
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Social Bytes

CERTIFICATE

This is to certify that **Mr. Maddipati Sai Santhosh Nikhil, Reg. No.** 22IAMOS120, student of 3rd Semester, M.Sc. Data Science, Indian Academy Degree College (Autonomous), Bangalore 560043 has completed his internship at Socialbytes Technologies Pvt Ltd on the topic of **Data Visualization**, from 27th November 2023 for a month, under the guidance of Mr. Girish N S, Head of Technology Platforms, in our company.

Socialbytes Technologies Pvt Ltd wishes **Mr. Maddipati Sai Santhosh Nikhil**, a bright future.

Chethan Elvis Das
Director

Socialbytes Technologies Pvt Ltd Bangalore

Date: 13th February 2024

SocialBytes Technologies Private. Limited.,
No.5M-671, M M Square, 3rd Floor, 5th Main Road, OMBR Layout, Banaswadi, Channasandra,
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal. **Dr N. Thilaka**, who gave opportunity to do the project and complete it successfully. I am very much thankful to her.

I would like to express my special thanks to our Head, Department of Computer science, **Mrs. Anuradha .P** for providing constant support and cooperation during the Internship project development.

I would also like to thank my parents and friends who helped me a lot in finalizing the project.

MADDIPATI SAI SANTHOSH NIKHIL

22IAMOS120

INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

"Analysis Of Cancer Data using Apache Superset"

Submitted in partial fulfillment of

III SEMESTER MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE
AUTONOMOUS

Developed by

STUDENT NAME	REG NO
MAGESHWARI D	22IAMOS121

INDIAN ACADEMY
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CERTIFICATE

This is to certify that the **Internship entitled "ANALYSIS OF CANCER DATA USING APACHE SUPERSET"** is a bonafide work done by **MAGESHWARI D (Reg no. 22IAMOS121)** submitted in partial fulfillment of III SEMESTER MSC DATA SCIENCE during the academic year 2023-2024

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HEAD OF THE DEPARTMENT
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Head
Department of Computer Science
Indian Academy Degree College
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CERTIFICATE

This is to certify that **Ms.Mageswari, Reg. No.** 22IAMOS121, student of 3rd Semester, M.Sc. Data Science, Indian Academy Degree College (Autonomous), Bangalore 560043 has completed her internship at Socialbytes Technologies Pvt Ltd on the topic of **Data Visualization**, from 27th November 2023 for a month, under the guidance of Mr. Girish N S, Head of Technology Platforms, in our company.

Socialbytes Technologies Pvt Ltd wishes **Ms. Mageswari**, a bright future.

.....
Chethan Elvis Das
Director

Socialbytes Technologies Pvt Ltd Bangalore

Date: 13th February 2024

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal. **Dr N. Thilaka**, who gave opportunity to do the project and complete it successfully. I am very much thankful to her.

I would like to express my special thanks to our Head, Department of Computer science, **Mrs. Anuradha . P**, for providing constant support and cooperation during the Internship project development.

I would also like to thank my parents and friends who helped me a lot in finalizing the project

MAGESHWARI D
22IAMOS121

INDIAN ACADEMY

Degree College - Autonomous

An Internship Report on

Web Scraping Google Maps For Data Collection

Submitted in partial fulfillment

of

III SEMESTER

MSC DATASCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REG NO
RIFATH F	(22IAMOS122)

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled **"Web Scraping Google Maps For Data Collection"** is bonafide work done by **RIFATH F (22IAMOS122)**, submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
Department of Computer Science
Examiners
Date:

HEAD OF THE DEPARTMENT
Mrs. ANURADHA. P

Head
Department of Computer Science
Indian Academy Degree College
Hennur Cross, Hennur Main Road
Bangalore-560043

Date: 02nd January,2024

To Whomsoever It May Concern

Signpost India Limited hereby acknowledges the completion of the internship program by **Rifath F (Reg No:22IAMOS122)**, a M.Sc Data Science Student from **Indian Academy Degree College – Autonomous, Bangalore.** During her time with the Data Science and Data Analytics team, Rifath has shown commendable proficiency and a systematic approach in her work.

Rifath demonstrated exceptional technical proficiency in executing the project "Web Scraping Google Maps for Data Collection." Leveraging Python and Selenium, she developed a robust script for extracting comprehensive information from Google Maps. Rifath gained hands-on experience in dynamic web content, meticulous data extraction, error handling, and efficient CSV-based data management

This certificate recognizes Rifath's consistent efforts and professional commitment during her internship. The experience and knowledge she has gained here are expected to serve her well in her ongoing career in Data Science and Data Analytics.

We wish Rifath F success in her future professional endeavors.
Internship Duration: 27-November,2023 to 30-December,2023

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Signpost India Limited
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal, Dr. N. Thilaka, who gave opportunity to do the Internship and completed it successfully. I am very much thankful.

I would like to express my special thanks to our H.O.D (Dept. of Computer Science) Mrs. Anuradha. P, for providing constant support and cooperation during the internship.

I would also like to thank my parents and friends who helped me a lot in finalizing this internship report.

RIFATH F
22IAMOS122

INDIAN ACADEMY

Degree College - Autonomous

An Internship Report on

Web Scraping Google Maps For Data Collection

Submitted in partial fulfillment

of

III SEMESTER

MSC DATASCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REG NO
S SAHERA TAZEEN	(22IAMOS123)

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled **"Web Scraping Google Maps For Data Collection"** is bonafide work done by **S SAHERA TAZEEN (22IAMOS123),** submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
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Date:

HEAD OF THE DEPARTMENT
Mrs. ANURADHA. P
Head
Department of Computer Science
Indian Academy Degree College
Hennur Cross, Hennur Main Road
Bangalore-560043

Date: 02nd January,2024

To Whomsoever It May Concern

Signpost India Limited hereby acknowledges the completion of the internship program by S **Sahera Tazeen(Reg No:22IAMOS123)**, a M.Sc Data Science Student from **Indian Academy Degree College – Autonomous, Bangalore.** During her time with the Data Science and Data Analytics team, Sahera has shown commendable proficiency and a systematic approach in her work.

Sahera demonstrated exceptional technical proficiency in executing the project "Web Scraping Google Maps for Data Collection." Leveraging Python and Selenium, she developed a robust script for extracting comprehensive information from Google Maps. Sahera gained hands-on experience in dynamic web content, meticulous data extraction, error handling, and efficient CSV-based data management

This certificate recognizes Sahera's consistent efforts and professional commitment during her internship. The experience and knowledge she has gained here are expected to serve her well in her ongoing career in Data Science and Data Analytics.

We wish S Sahera Tazeen success in her future professional endeavors.
Internship Duration: 27-November,2023 to 30-December,2023

SIGNPOST INDIA LTD Bangalore

Syed Khadarvalli
Senior Data Scientist
Signpost India Limited
+91 91827 26903

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal, Dr. N. Thilaka, who gave opportunity to do the Internship and completed it successfully. I am very much thankful.

I would like to express my special thanks to our H.O.D (Dept. of Computer Science) Mrs. Anuradha. P, for providing constant support and cooperation during the internship.

I would also like to thank my parents and friends who helped me a lot in finalizing this internship report.

S SAHERATAZEEN
22IAMOS123

INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

Analysis of RUDSETI Programs and Training Data using Excel

Submitted in partial fulfillment of

III SEMESTER

MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REG NO
SHWETHA . M	22IAMOS124

INDIAN ACADEMY

Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled "**Analysis of RUDSETI Programs and Training Data using Excel**" is bonafide work done by **SHWETHA .M (22IAMOS124),** submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
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19/4/24
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HEAD OF THE DEPARTMENT
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Head
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Indian Academy Degree College
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National Academy of RUDSETI

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Survey No.30, Govt School Road Beside Yadava Sangha Temple, Kumbalagodu Village & post, Kengeri Hobli, Bengaluru South

02-January-2024

INTERNSHIP CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Shwetha.M (Reg No: 22IAMOS124)**, a M.Sc Data Science student from **Indian Academy Degree College – Autonomous, Bangalore** has completed her Internship program in **"Data Analysis using Excel and Tableau"** at our Organization from 01-December-2023 to 30-December-2023.

During the course of her internship in our organization, her performance was good. She was punctual, hardworking and inquisitive.

We wish her all the very best in her future endeavors.

National Academy of RUDSETI

Authorised Signatory

NAR BENGALURU 560 074 RUDSETI NATIONAL

Contact us at E-mail : info@rudsetacademy.org | Web : www.rudsetitraining.org

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal. **Dr N. Thilaka**, who gave opportunity to do the project and complete it successfully. I am very much thankful to her.

I would like to express my special thanks to our Head, Department of Computer science, **Mrs. Anuradha .P**, for providing constant support and cooperation during the Internship project development.

I would also like to thank my parents and friends who helped me a lot in finalizing the project

SHWETHA. M
221AMOS124

INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

"Analysis Of Cancer Data using Apache Superset"

Submitted in partial fulfillment of

III SEMESTER MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE
AUTONOMOUS

Developed by

STUDENT NAME	REG NO
SOUMIYA A	22IAMOS125

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the **Internship entitled "ANALYSIS OF CANCER DATA USING APACHE SUPERSET"** is a bonafide work done by **SOUMIYA A (Reg no. 22IAMOS125)** submitted in partial fulfillment of III SEMESTER MSC DATA SCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
Department of Computer Science
Examiners
1. A. Venkatesh
2.
Date: 19/4/24

Anuradha

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Social Bytes

CERTIFICATE

This is to certify that **Ms. Soumiya, Reg. No.** 22IAMOS125, student of 3rd Semester, M.Sc. Data Science, Indian Academy Degree College (Autonomous), Bangalore 560043 has completed her internship at Socialbytes Technologies Pvt Ltd on the topic of **Data Visualization**, from 27th November 2023 for a month, under the guidance of Mr. Girish N S, Head of Technology Platforms, in our company.

Socialbytes Technologies Pvt Ltd wishes **Ms. Soumiya**, a bright future.

.....

Chethan Elvis Das
Director

Socialbytes Technologies Pvt Ltd Bangalore

Date: 13th February 2024

SocialBytes Technologies Private. Limited.,
No.SN-671, M M Square, 3rd Floor, 5th Main Road, OMBR Layout, Banaswadi, Channasandra,
Bangalore - 560043. T:+91 8431160467 / e:account@thesocialbytes.com

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal. **Dr N. Thilaka**, who gave opportunity to do the project and complete it successfully. I am very much thankful to her.

I would like to express my special thanks to our Head, Department of Computer science, **Mrs. Anuradha .P**, for providing constant support and cooperation during the Internship project development.

I would also like to thank my parents and friends who helped me a lot in finalizing the project

SOUMIYA A
22IAMOS125

INDIAN ACADEMY

Degree College - Autonomous

An Internship Report on

Data Analytics Using Tableau

Submitted in partial fulfillment

of

III SEMESTER

MSC DATASCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE

AUTONOMOUS

Developed by

STUDENT NAME	REG NO
AFTAB KHAN	(22IAMOS157)

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled **"Data Analytics using Tableau"** is bonafide work done by **AFTAB KHAN (22IAMOS157),** submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
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Date:

HEAD OF THE DEPARTMENT
Mrs. Anuradha .P

Head
Department of Computer Science
Indian Academy Degree College
Hennur Cross, Hennur Main Road
Bangalore-560043

CERTIFICATE

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Corporate Identification Number
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1436400001534745 8

Ybi Foundation

This is to Certify that

Aftab Khan

has successfully completed

Data Analytics Internship

Duration : 2 Months completed on Tuesday, Mar 05 2024

demonstrated exceptional dedication with strong willingness to learn and actively engaged in various projects, tasks exhibiting remarkable skills with high level of professionalism.

Credential ID :
NSC4AD82HB652

Tuesday

Dr. Alok Yadav
Ybi Foundation

MINISTRY OF CORPORATE AFFAIRS
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal, Dr. N. Thilaka, who gave opportunity to do the Internship and completed it successfully. I am very much thankful.

I would like to express my special thanks to our H.O.D (Dept. of Computer Science) Mrs. Anuradha. P, for providing constant support and cooperation during the internship.

I would also like to thank my parents and friends who helped me a lot in finalizing this internship report.

AFTAB KHAN
22IAMOS157

INDIAN ACADEMY

Degree College - Autonomous

An Internship Report on

Analysis of RUDSETI Programs and Training Data using Tableau

Submitted in partial fulfillment of

III SEMESTER

MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REG NO
KIRAN KUMAR	22IAMOS158

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled **"Analysis of RUDSETI Programs and training data using Tableau"** is bonafide work done by **KIRAN KUMAR (22IAMOS158),** submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
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2. A. Venkatesh
Date:

HEAD OF THE DEPARTMENT
Mrs. Anuradha .P

Head
Department of Computer Science
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02-January-2024

INTERNSHIP CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Kiran Kumar (Reg No:22IAMOS158)**, a M.Sc Data Science Student from **Indian Academy Degree College – Autonomous, Bangalore** has completed his Internship program in **"Data Analysis using Excel and Tableau"** at our Organization from 01-December-2023 to 30-December-2023.

During the course of his internship in our organization, his performance was good. He was punctual, hardworking and inquisitive.

We wish him all the very best in his future endeavors.

National Academy of RUDSETI

Authorised Signatory

ACADEMY OF RUDSETI NAR BENGALURU 560 074

Contact us at E-mail : info@rudsetacademy.org | Web : www.rudsetitraining.org

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal, Dr. N. Thilaka, who gave opportunity to do the Internship and completed it successfully. I am very much thankful.

I would like to express my special thanks to our H.O.D (Dept. of Computer Science) Mrs. Anuradha. P, for providing constant support and cooperation during the internship.

I would also like to thank my parents and friends who helped me a lot in finalizing this internship report.

KIRAN KUMAR
22IAMOS158

INDIAN ACADEMY
Degree College - Autonomous

An Internship Report on

Analysis of RUDSETI Programs and Training Data using Python

Submitted in partial fulfillment of

III SEMESTER

MSC DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REG NO
CHETHANA . L	22IAMOS160

INDIAN ACADEMY

Degree College - Autonomous

CERTIFICATE

This is to certify that the Internship entitled "**Analysis of RUDSETI PROGRAMS AND Training Data using Python "** is bonafide work done by **CHETHANA .L (22IAMOS160),** submitted in partial fulfillment of III SEMESTER MSC DATASCIENCE during the academic year 2023-2024

INDIAN ACADEMY DEGREE COLLEGE
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1. A. Venkatesh
2.
Date:

HEAD OF THE DEPARTMENT
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02-January-2024

INTERNSHIP CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Chethana.L (Reg No: 22IAMOS160)**, a M.Sc Data Science student from **Indian Academy Degree College – Autonomous, Bangalore** has completed her Internship program in **"Data Analysis using Excel and Tableau"** at our Organization from 01-December-2023 to 30-December-2023.

During the course of her internship in our organization, her performance was good. She was punctual, hardworking and inquisitive.

We wish her all the very best in her future endeavors.

National Academy of RUDSETI

Authorised Signatory

Contact us at E-mail : info@rudsetacademy.org | Web : www.rudsetitraining.org

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to our respected Principal. **Dr N. Thilaka**, who gave opportunity to do the project and complete it successfully. I am very much thankful to her.

I would like to express my special thanks to our Head, Department of Computer science, **Mrs. Anuradha .P**, for providing constant support and cooperation during the Internship project development.

I would also like to thank my parents and friends who helped me a lot in finalizing the project

CHETHANA.L

221AMOS160

INDIAN ACADEMY
Degree College - Autonomous

A Project Report on

"Sensitive Data Detection using Deep Learning"

Submitted in partial fulfillment
of IV SEMESTER
MSC DATA SCIENCE

As prescribed by
INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Submitted by
ARYA S KUMAR (22IAMOS119)

Under the guidance of
Mrs. ANURADHA. P

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the project entitled **"Sensitive Data Detection using Deep Learning"** is bonafide work done by **ARYA S KUMAR (22IAMOS119),** submitted in partial fulfillment of IV SEMESTER MSC DATA SCIENCE during the academic year 2023-2024

Internal Guide
Mrs. ANURADHA

INDIAN ACADEMY DEGREE COLLEGE
Department of Computer Science
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2.
Date: 6/9/24

HEAD OF THE DEPARTMENT
Mrs. ANURADHA. P
Head
Department of Computer Science
Indian Academy Degree College
Amanur Cross, Hennur Main Road
Bangalore-560043.

ABSTRACT

The General Data Protection Regulation (GDPR) has allowed EU citizens and residents to have more control over their personal data, simplifying the regulatory environment affecting international business and unifying and homogenising privacy legislation within the EU. This regulation affects all companies that process data of European residents regardless of the place in which they are processed and their registered office, providing for a strict discipline of data protection. This project aims to develop a Deep learning model for detecting sensitive data in images, an essential task in ensuring compliance with regulations like the General Data Protection Regulation (GDPR). The approach involves training a custom Convolutional Neural Network (CNN) to classify images as sensitive or non-sensitive. The model was constructed using TensorFlow, with data augmentation techniques applied to enhance the training dataset.

The architecture consists of multiple convolutional layers, followed by pooling layers, and dense layers, resulting in a final binary classification output. To prevent overfitting, an early stopping callback was implemented, halting the training once the model achieved 98% accuracy. The model was trained on a dataset with images labeled as sensitive or non-sensitive and evaluated using metrics such as accuracy and confusion matrices.

The model achieved high accuracy, demonstrating its effectiveness in detecting sensitive content within images. The project also included steps to save the trained model and convert it into a format suitable for deployment in web applications. This research highlights the potential of deep learning models in automating the identification of sensitive data, helping organizations manage their data more securely and comply with legal requirements.

INDIAN ACADEMY
Degree College - Autonomous

A Project Report on

"HUMAN VIOLENCE DETECTION USING DEEP LEARNING TECHNIQUES"

Submitted in partial fulfillment of
IV SEMESTER M.Sc DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

Developed by

STUDENT NAME	REGNO
M SAI SANTHOSH NIKHIL	22IAMOS120

Under the guidance of

Mrs. ANURADHA .P

INDIAN ACADEMY
Degree College - Autonomous

CERTIFICATE

This is to certify that the project entitled **"HUMAN VIOLENCE DETECTION USING DEEP LEARNING TECHNIQUES"** is a bonafide work done by **MADDIPATI SAI SANTHOSH NIKHIL (22IAMOS120)** submitted in partial fulfillment of IV SEMESTER M.Sc DATA SCIENCE during the academic year 2023-2024.

INTERNAL GUIDE

Mrs. Anuradha .P

HEAD OF THE DEPARTMENT

Mrs. Anuradha .P

Department of Computer Science
Indian Academy Degree College
Hennur Cross, Hennur Main Road
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INDIAN ACADEMY DEGREE COLLEGE
Department of Computer Science
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Date :

ABSTRACT

Violence detection in video data has become increasingly important for maintaining public safety and preventing criminal activities. As surveillance systems generate vast amounts of video footage, the need for automated methods to identify violent behavior has grown. Deep learning techniques have emerged as powerful tools for this task due to their ability to learn complex patterns and features from large datasets. In this study, we explore the application of deep learning models for violence detection, comparing the performance of MobileNet, ResNet, and GRU architectures. Among these, MobileNet achieves the highest accuracy of 97%, demonstrating its effectiveness in identifying violent events. Furthermore, we integrate person detection using the Fast R-CNN model to enhance the system's contextual understanding and accuracy. This integrated approach offers a robust and efficient solution for real-time violence detection in video surveillance systems.

INDIAN ACADEMY
Degree College - Autonomous

A Project Report on

"BLOGBOT: AI-POWERED BLOG GENERATION WITH LLAMA"

Submitted in partial fulfillment of
IV SEMESTER M.Sc. DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE

AUTONOMOUS

Developed by

STUDENT NAME	REGNO
MAGESHWARI D	22IAMOS121

Under the guidance of

Mrs. ANURADHA .P

INDIAN ACADEMY
Degree College - Autonomous

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This is to certify that the project entitled **"BLOGBOT: AI-POWERED BLOG GENERATION WITH LLAMA"** is a bonafide work done by **MAGESHWARI D (22IAMOS121)** submitted in partial fulfillment of IV SEMESTER M.Sc. DATA SCIENCE during the academic year 2023-2024.

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ABSTRACT

BlogBot is an innovative AI-powered tool that automates blog content generation using the advanced capabilities of the Llama (Large Language Model) model. The project leverages natural language processing (NLP) to dynamically create high-quality, contextually relevant blog posts based on user inputs, such as topic, style, and word count. By utilizing Llama's deep learning architecture, BlogBot can generate human-like text that caters to specific audiences, including researchers, data scientists, and general readers. This solution streamlines the content creation process, reducing the time and effort required for writing, while maintaining coherence, creativity, and customization. BlogBot demonstrates the potential of AI to transform digital content generation, offering a scalable and efficient tool for bloggers, marketers, and content creators.

INDIAN ACADEMY
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A Project Report on

"Facial Animation Using Deep Learning"

Submitted in partial fulfillment of

IV SEMESTER

M.Sc DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

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This is to certify that the project entitled **"Facial Animation Using Deep Learning"** is a bonafide work done by **Rifath F (22IAMOS122),** submitted in partial fulfillment of IV SEMESTER M.Sc DATA SCIENCE during the academic year 2023-2024.

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Abstract

Facial animation is crucial for virtual reality, entertainment, and communication. This project operates within the domain of Artificial Intelligence and Computer Vision, specifically focusing on applying Deep Learning techniques to enhance facial animation. It presents an advanced method for animating static facial images using motion data from driving videos, eliminating the need for manual annotations or specific face details. The approach utilizes Generative Adversarial Networks (GANs) and a self-supervised learning system, trained on large video datasets of human faces, to separate appearance from motion. By applying key points and local affine transformations, the method manages complex facial expressions effectively. A key component of the GAN framework, the generator network, addresses occlusions and combines features from the source image and the driving video to create realistic animations. This model, which bypasses manual labeling, supports training on large datasets and achieves 95% accuracy, producing high-quality, lifelike animations. The results demonstrate its significant potential for applications such as creating realistic avatars in virtual reality environments, enhancing interactive gaming experiences, and improving digital communication tools by providing expressive and dynamic virtual faces.

Keywords: Facial animation, self-supervised learning, Deep Learning, key points, local affine transformations, Generative Adversarial Network, virtual reality, entertainment, communication.

INDIAN ACADEMY
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A Project Report on

"Data-Driven Talent Acquisition Using Machine Learning Techniques"

Submitted in partial fulfillment of

IV SEMESTER

M.Sc DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

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Abstract

In the dynamic landscape of modern business, optimizing recruitment processes is crucial for identifying top talent efficiently. The project titled "Data-Driven Talent Acquisition Using Machine Learning Techniques" leverages machine learning to enhance the recruitment process by predicting job placements based on various factors. This project integrates a sophisticated machine learning model with real-time prediction capabilities to aid HR professionals in making data-driven decisions.

The system utilizes historical employee data to train a Random Forest Classifier, which has demonstrated superior performance with an accuracy of 92.13% compared to other models like K-Nearest Neighbors, Decision Trees, Support Vector Machines, Gaussian Naive Bayes, and Logistic Regression. The data preprocessing phase includes handling missing values, encoding categorical variables, and balancing the dataset to improve model performance.

A comprehensive web application developed with Flask facilitates user interaction by allowing HR professionals to input candidate details and receive instant placement predictions. Additionally, the project features an interactive dashboard that visualizes key metrics such as average satisfaction levels, department-wise performance, and salary correlations, using pie charts, histograms, and bar plots.

By incorporating machine learning, the project aims to streamline the recruitment process, making it more efficient and accurate. The integration of these advanced analytics tools provides valuable insights, enhances decision-making, and contributes to optimizing HR functions in a competitive business environment.

Keywords: Talent Acquisition, Recruitment, Machine Learning, Random Forest, Job Placement Prediction, HR Analytics, Data-Driven Decision Making, Flask Web Application, Predictive Modeling, HR Technology.

INDIAN ACADEMY
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A Project Report on

"PERSONALIZED MEDICAL GUIDANCE USING DEEP LEARNING TECHNIQUES"

Submitted in partial fulfillment of
IV SEMESTER M.Sc DATA SCIENCE

As prescribed by

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This is to certify that the project entitled **"PERSONALIZED MEDICAL GUIDANCE USING DEEP LEARNING TECHNIQUES"** is a bonafide work done by **SHWETHA M (22IAMOS124)** submitted in partial fulfillment of IV SEMESTER M.Sc DATA SCIENCE during the academic year 2023-2024.

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Abstract

In recent years, the intersection of healthcare and technology has led to significant advancements in personalized medicine. The project titled **"Personalized Medical Guidance Using Deep Learning Techniques"** aims to provide users with precise health insights and tailored medical advice. By analyzing user-input symptoms, this system predicts potential diseases and offers personalized recommendations, including the top five medications, detailed prescription information, and appropriate workout routines tailored to the user's condition.

The system is powered by advanced deep learning model to ensure accuracy and reliability in disease prediction. It features a user-friendly interface designed to facilitate effortless symptom input, thereby making the system accessible to a wide range of users. The underlying Flask web application architecture ensures that the platform is both scalable and easily accessible from any location, providing users with convenient access to healthcare recommendations.

Privacy and security are of paramount importance; the system adheres to stringent data protection protocols, ensuring that all user data is handled with the highest level of confidentiality. Furthermore, the system is designed for continuous learning and improvement. As more user data is gathered, the deep learning models are continuously refined, leading to increasingly accurate and relevant recommendations.

This project represents a significant advancement in empowering individuals to manage their health through personalized, data-driven insights. It is poised to enhance patient outcomes by offering timely and precise medical recommendations, thereby contributing to the broader goal of improving public health through technology.

Keywords: Personalized Medicine, Deep Learning, Disease Prediction, Flask Application, Medical Recommendations, Healthcare Technology, User Privacy, Data Security.

INDIAN ACADEMY

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A Project Report on

"HEALTHCARE SOLUTION USING MACHINE LEARNING AND DEEP LEARNING TECHNIQUES"

Submitted in partial fulfilment of

4TH SEMESTER MSC DATA SCIENCE

As prescribed by

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This is to certify that the project entitled **"Healthcare Solution using Machine Learning and Deep Learning Techniques"** is bonafide work done by **SOUMIYA.A (22IAMOS125),** submitted in partial fulfilment of 4th SEMESTER MSC DATA SCIENCE during the academic year 2022-2024

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ABSTRACT

This healthcare solution integrates advanced machine learning models to enable early and accurate detection of five critical diseases: pneumonia, heart disease, brain tumor, Parkinson's disease, and diabetes. Utilizing a combination of image-based and feature-based analysis, the system offers a comprehensive diagnostic tool. For pneumonia, SVM to analyse X-ray images and identify signs of infection. Heart disease is detected using stacking classifiers like logistic Regression, XGB classifier, and Random Forest classifier, based on patient health data. Brain tumor detection is achieved through deep learning models that process medical imaging data for early tumor identification. Additionally, Parkinson's disease and diabetes are diagnosed using specialized models; Parkinson's is assessed through movement and symptom data, while diabetes is detected with an optimized logistic regression model evaluating health parameters. Designed for ease of use, this solution enhances diagnostic accuracy and provide the precautions for the disease and also supports proactive health management, contributing to improved patient care and outcomes.

INDIAN ACADEMY
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A Project Report on

"Image Cartoonizer Using Deep Learning"

Submitted in partial fulfillment of

IV SEMESTER

M.Sc DATA SCIENCE

As prescribed by

INDIAN ACADEMY DEGREE COLLEGE AUTONOMOUS

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This is to certify that the project entitled **"Image Cartoonizer Using Deep Learning"** is a bonafide work done by **Aftab Khan (22IAMOS157),** submitted in partial fulfillment of IV SEMESTER M.Sc DATA SCIENCE during the academic year 2023-2024.

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Abstract

Image Cartoonizer Using Deep Learning Techniques is a project focused on converting realistic photographs into stylized, cartoon-like visuals through advanced deep learning techniques. This study employs a combination of RNet and U-Net algorithms to achieve high-quality cartoonization with a reported accuracy of 95%. RNet, a residual network, enhances feature extraction by capturing detailed textures and refining image features. U-Net, with its encoder-decoder architecture and skip connections, is utilized for the cartoonization process. It segments the image and applies artistic filters to transform distinct regions into cartoon-like features.

The methodology begins with preprocessing steps such as resizing and normalization to prepare the image for neural network processing. RNet improves the feature representation, while U-Net applies artistic effects through its decoder stages. This integrated approach produces cartoonized images that retain structural integrity and exhibit artistic abstraction. The evaluation of the method emphasizes visual fidelity and artistic quality, demonstrating the effectiveness of combining RNet for feature extraction with U-Net for image segmentation. The project achieves a high level of accuracy, presenting a robust solution for generating visually compelling cartoon images.

Keywords: Image Cartoonization, RNet, U-Net, Deep Learning, Feature Extraction

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A Project Report on

"Sign Language Interpreter using Deep Learning"

Submitted in partial fulfillment
of IV SEMESTER
MSC DATA SCIENCE

As prescribed by
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This is to certify that the project entitled **"Sign Language Interpreter using Deep Learning"** is bonafide work done by **Kiran Kumar (22IAMOS158),** submitted in partial fulfillment of IV SEMESTER MSc DATA SCIENCE during the academic year 2023-2024

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Abstract

Sign language interpreters play a crucial role in improving communication between the deaf and hearing communities. This project aims to enhance this communication by using Convolutional Neural Networks (CNN) and the VGG16 architecture to detect and interpret sign language gestures. The primary goal is to develop a system that accurately recognizes these gestures, thereby facilitating easier communication for sign language users. A custom CNN model was specifically created for sign language interpretation, and the VGG16 model, pre-trained on ImageNet, was fine-tuned for this task. The dataset comprised various sign language gestures, and preprocessing steps, such as resizing, normalization, and data augmentation, were applied to improve model performance. The CNN model, trained with multiple convolutional layers, pooling, and fully connected layers, achieved an impressive accuracy of 100%. The VGG16 model, adjusted with custom layers, reached an accuracy of 99.80%. Both models were tested on a set of sign language gestures, demonstrating the effectiveness of deep learning techniques in interpreting sign language. The high accuracy of both models indicates their potential for real-world applications, where accurate sign language interpretation can greatly benefit the deaf community. This report details the methodology, including data collection, preprocessing, model training, and evaluation. The findings highlight the importance of using advanced deep learning models to develop inclusive technologies that improve communication accessibility. Future work will focus on expanding the dataset and exploring other deep learning architectures to further enhance performance.

Keywords: Sign Language Recognition, CNN, VGG16, Gesture Detection, Deep Learning, Accuracy, Communication Accessibility

INDIAN ACADEMY
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A Project Report on

"Speech Emotion Recognition using Deep Learning"

Submitted in partial fulfillment
of IV SEMESTER
MSC DATA SCIENCE

As prescribed by
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This is to certify that the project entitled **"Speech Emotion Recognition using Deep Learning"** is bonafide work done by **Malock Mbang Vincent De Paul (22IAMOS159),** submitted in partial fulfillment of IV SEMESTER MSc DATA SCIENCE during the academic year 2023-2024

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Abstract

Emotion recognition from speech is a critical component in improving human-computer interaction systems, enabling more empathetic and context-aware applications. This project investigates the application of machine learning and deep learning models for Speech Emotion Recognition (SER). Three models were developed and tested: Long Short-Term Memory (LSTM), Convolutional Neural Network (CNN), and Random Forest Classifier. The dataset used contains audio samples labeled with various emotions such as "angry," "happy," "sad," and "neutral." Mel Frequency Cepstral Coefficients (MFCCs) were extracted as features from the audio data. The LSTM model achieved the highest accuracy among the tested models, demonstrating its effectiveness in handling time-series data. This project concludes by highlighting the potential applications of SER in call centers, healthcare, and other industries requiring enhanced human-computer interactions.

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A Project Report on

"STOCK TREND PREDICTION USING DEEP LEARNING TECHNIQUES"

Submitted in partial fulfillment of
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ABSTRACT

This project, titled " Stock Trend Prediction Using Deep Learning Techniques," explores advanced methodologies for forecasting stock prices amidst the inherent volatility of financial markets. Traditional time series models, while commonly employed for stock price prediction, often struggle with capturing complex non-linear patterns and maintaining long-term dependencies. This research leverages deep learning techniques, specifically Recurrent Neural Networks (RNNs) and Long Short-Term Memory (LSTM) networks, to address these limitations. By utilizing Python programming and integrating machine learning libraries such as Scikit-learn, along with historical stock data obtained via Yahoo Finance's API, this study aims to enhance prediction accuracy. The comparative analysis focuses on evaluating the performance of LSTM networks against traditional time series models using metrics such as Root Mean Square Error (RMSE). The project's goal is to develop a robust forecasting tool that provides more accurate predictions of future stock prices, identifies underlying trends, and offers actionable insights for investors and market regulators. The outcomes of this research are expected to improve decision-making processes, contribute to better investment strategies, and support economic stability.

Keywords

Long Short-Term Memory (LSTM), Deep Learning, Stock Price Prediction, Yahoo Finance API, Root Mean Square Error (RMSE).