## ANOMALY DETECTION IN ASTRONOMICAL OBJECTS OF GALAXIES USING CNN ALGORITHM

A Project Report submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

by

ABIRAMI B. (Reg No: 30520P15001)

Under the guidance of

Dr. DEEBA K.,



**Department of Computer Science** 

### Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

**JUNE 2022** 

Sr. Jyn such - a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006 Vellore District, Tamil Nadu.

This is to certify that this project report entitled "ANOMALY DETECTION IN ASTRONOMICAL OBJECTS OF GALAXIES USING CNN ALGORITHM" being submitted to the Auxilium College (Autonomous), Vellore, by Ms. ABIRAMI B., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Assistant Professor (Guide), Department of Computer Applications, Auxilium College (Autonomous), Vellore-632 006.

Examiners:

Such 01 RINCIPAL COLLEGE (Autonomous) Gandhi Nagar, Vellore - 632 006 Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete this project successfully.

I am thankful to the management of **Auxilium College** (Autonomous), which has imparted me sufficient knowledge and confidence to complete the project in the field of Computer Science.

I express my special thanks to **Dr. (Sr.) Jaya Santhi R.**, Principal, Auxilium College (Autonomous), Vellore, for giving me the necessary environment to acquire knowledge, skill and for her constant encouragement for the successful completion of the project.

I am highly indebted to **Dr. Lavanya S.**, Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of this project.

I express my gratitude to **Dr. Deeba K.,** Asst. Professor, Department of Computer Applications, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to **My Parents and Friends** for their constant encouragement to bring this project to a successful completion.

Sr. oyan Buch - a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Vellore - 632 006. Vellore District, Tamil Nadu.

## ANALYSIS OF CROP YIELD PREDICTION USING ENSEMBLE CLASSIFIER

A Project Report Submitted for the partial fulfilment for the award of degree of M.Sc. Computer Science

by

DESHITHA S. (Reg No: 30520P15002)

Under the guidance of

Dr. Lavanya S.



Department of Computer Science Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

June 2022

Sr. Jy such - a

AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

This is to certify that this project report entitled "ANALYSIS OF CROP YIELD PREDICTION USING ENSEMBLE CLASSIFIER", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. DESHITHA S., for the partial fulfilment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

Head and Assistant Professor (Guide), PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on. 04.06.2022

Examiners:

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Such PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete this project successfully.

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Sr. Jy such a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

## EARTHQUAKE MAGNITUDE PREDICTION USING REGRESSION AND XGBOOST ALGORITHM

A Project Report Submitted for the partial fulfillment for the award of degree of

M.Sc. Computer Science

by

INDHUMATHI G. (Reg.No: 30520P15003)

Under the guidance of

Dr. SHANTHI AL.



## Department of Computer Science

## Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

June 2022

Sr. oyan such a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

This is to certify that this project report entitled **"EARTHQUAKE MAGNITUDE PREDICTION USING REGRESSION AND XGBOOST ALGORITHM"**, being submitted to the Auxilium College (Autonomous). Vellore, by **Ms.INDHUMATHI G.**, for the partial fulfillment for the award of Degree of **M.Sc. Computer Science**, is a bonafide record of work carried out by her. under our guidance and supervision. It has not been submitted for the award of any other degree.

Head and Assistant Professor. PG Department of Computer Applications, Auxilium College (Autonomous), Vellore-632 006.

Shanthi AL..

Assistant Professor (Guide). Department of Computer Applications. Auxilium College (Autonomous). Vellore-632 006.

Submitted for the Viva-Voce Examination on ...04.:06.:.20.22...

Examiners

04 PRINCIPAL

AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete this project successfully.

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I am highly indebted to **Dr. Lavanya S.**, Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of this project.

I express my gratitude to **Dr. Shanthi AL.,** Assistant Professor, Department of Computer Applications, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to **My Parents and Friends** for their constant encouragement to bring this project to a successful completion.

Sr. Jy Buch - a

PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Vellore - 632 006. Vellore District, Tamil Nadu.

## ENHANCING THE PERFORMANCE OF MACHINE LEARNING TECHNIQUES IN HEART DISEASE PREDICTION

A Project Report Submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

> by LAVANYA PRIYA M. (Reg No: 30520P15005)

Under the guidance of

### Ms. ANBU SELVI REMITTA A.



## **Department of Computer Science**

### Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

**June 2022** 

Sr. Jy Such - 2

PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

This is to certify that this project report entitled "ENHANCING THE PERFORMANCE OF MACHINE LEARNING TECHNIQUES IN HEART DISEASE PREDICTION", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. LAVANYA PRIYA M., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

S. Lananya

Dr. Lavanya S., Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Ms. Anbu Selvi Remitta A., Assistant Professor (Guide), Department of Computer Applications, Auxilium College (Autonomous), Vellore-632 006.

Examiners:

such -a PRINCIPAL IUM COLLEGE (Autonomous)

Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete

this project successfully. I am thankful to the management of Auxilium College (Autonomous), which has imparted me sufficient knowledge and confidence to complete the project in the field of Computer Science.

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the project. I am highly indebted to **Dr. Lavanya S.**, Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of

this project I express my gratitude to **Ms. Anbu Selvi Remitta A.,** Asst. Professor, Department of Computer Applications, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to **My Parents and Friends** for their constant encouragement to bring this project to a successful completion.

Sr. Jyn Buch - a AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006.

Vellore District, Tamil Nadu.

## LIVER TUMOR DETECTION USING K-MEANS ALGORITHM

A Project Report Submitted for the partial fulfillment for the award of degree of

### M.Sc. Computer Science

by

NIVETHA V. (Reg No: 30520P15006)

Under the guidance of

Ms. SUSAI MARY SUSILA A.



## **Department of Computer Science**

## Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

- such - a 81.00

PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

June 2022

This is to certify that this project report entitled "LIVER TUMOR DETECTION USING K-MEANS ALGORITHM", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. NIVETHA V., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

A. S. Many S\_le Ms SUSALMARY SUSILA A.,

Assistant Professor (Guide), Department of Computer Applications, Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on...04:06:2022.

Examiners:

1) ----

Such PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Vellore - 632 006

Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete this project successfully.

I am thankful to the management of **Auxilium College** (Autonomous), which has imparted me sufficient knowledge and confidence to complete the project in the field of Computer Science.

I express my special thanks to **Dr. (Sr.) Jaya Shanthi R.,** Principal, Auxilium College (Autonomous), Vellore, for giving me the necessary environment to acquire knowledge, skill and for her constant encouragement for the successful completion of the project.

I am highly indebted to **Dr. Lavanya S.**, Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of this project.

I express my gratitude to **Ms. Susai Mary Susila A.**, Assistant Professor, Department of Computer Applications, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to **My Parents and Friends** for their constant encouragement to bring this project to a successful completion.

Sr. Jy Buch - a

AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

## Detection of Diabetic Retinopathy from OCTA using Kanade-Lucas-Tomasi Feature Tracker

A Project Report Submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

by

RESHMA R. (Reg No: 30520P15007)

Under the guidance of

Ms. JANANI P.



### Department of Computer Science

### Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

Sr. Jy Such - a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006

Vellore District, Tamil Nadu.

June 2022

This is to certify that this project report entitled "DETECTION OF DIABETIC RETINOPATHY FROM OCTA USING KANADE-LUCAS-TOMASI FEATURE TRACKER", being submitted to the Auxilium College (Autonomous). Vellore, by Ms. RESHMA R., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree

Lananya Dr. Lavanya S.

Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

P. Jarazi

Ms. Janani P., Assistant Professor (Guide), Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on...04..06...2022...

Examiners:

1) --

- a such 81.04 PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Vellore - 632 006. Vellore District, Tamil Nadu.

I thank, the Almighty God who showered his immense blessings, to complete this project successfully.

I am thankful to the management of **Auxilium College** (Autonomous), which has imparted me sufficient knowledge and confidence to complete the project in the field of Computer Science.

I express my special thanks to **Dr. (Sr.) Jaya Santhi R.**, Principal. Auxilium College (Autonomous). Vellore, for giving me the necessary environment to acquire knowledge, skill and for her constant encouragement for the successful completion of the project.

I am highly indebted to **Dr. Lavanya S.**, Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of this project.

I express my gratitude to **Ms. Janani P.**, Assistant Professor, Department of Computer Science, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to **My Parents and Friends** for their constant encouragement to bring this project to a successful completion.

Sr. Jy such - a PRINCIPAL

AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

### RACE Based Task Scheduling Approach using Baseline Algorithm for Fog Devices

A Project Report Submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

> By RUBY CELCIYA J. (Reg No: 30520P15008)

Under the guidance of

Ms. NIRMALA DEVI N.



## Department of Computer Science Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

Sr. oya such - a PRINCIPAL

Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

IUM COLLEGE (Autonomous)

June 2022

This is to certify that this project report entitled "RACE BASED TASK SCHEDULING APPRROACH USING BASELINE ALGORITHM FOR FOG DEVICES", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. RUBY CELCIYA J., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

Dr. Lavai

Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Ms. Nirmala Devi N., Assistant Professor (Guide), Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on...04...06....2022.

Examiners:

Sr. Jyn Such PRINCIPAL AUXILIUM COLLEGE (Autonomous)

AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

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I express my special thanks to **Dr. (Sr.) Jaya Shanthi R.**, Principal. Auxilium College (Autonomous), Vellore, for giving me the necessary environment to acquire knowledge, skill and for her constant encouragement for the successful completion of the project.

I am highly indebted to **Dr. Lavanya S.,** Assistant Professor, and Head PG Department of Computer Science, Auxilium College (Autonomous), Vellore, for her beneficial and inspiring guidance and encouragement given throughout the period of this project.

1 express my gratitude to **Ms. Nirmala Devi N.,** Assistant Professor. Department of Computer Science, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

I also express my whole hearted thanks to all the staff members of the Department of Computer Science and to My Parents and Friends for their constant encouragement to bring this project to a successful completion.

Sr. Jy such - 2 PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

## Detection and Classification of Leukemia from Bone Marrow Images using Convolutional Neural Network

A Project Report Submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

by

SONA R. (Reg No: 30520P15009)

Under the guidance of Ms. JANANI P.



### **Department of Computer Science**

### Auxilium College (Autonomous)

Gandhi Nagar, Vellore - 632 006.

June 2022

Sr. Jyn such - a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

This is to certify that this project report entitled "DETECTION AND CLASSIFICATION OF LEUKEMIA FROM BONE MARROW IMAGES USING CONVOLUTIONAL NEURAL NETWORK", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. SONA.R., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

**Dr. Lavanya S.,** Head and Assistant Professor, PG Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

P. Jananis

Ms. Janani P., Assistant Professor (Guide), Department of Computer Science, Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on. 04:06:2022...

Examiners:

2) ----

81.00 PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006 Vellore District, Tamil Nadu.

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I express my gratitude to **Ms. Janani P.,** Assistant Professor. Department of Computer Science, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

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Sr. Jy such - a PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

## DETECTION OF MELANOMA BY SKIN HAIR SEGMENTATION IN DERMOSCOPIC IMAGES

A Project Report Submitted for the partial fulfillment for the award of degree of M.Sc. Computer Science

by

SWETHA V. (Reg No: 30520P15010)

Under the guidance of

## Ms. NISHA PAULINE R.



**Department of Computer Science Auxilium College (Autonomous)** Gandhi Nagar, Vellore - 632 006.

June 2022

- a - such 81.04 PRINCIPAL

PRINCIPAL
 AUXILIUM COLLEGE (Autonomous)
 Gandhi Nagar, Veliore - 632 006.
 Vellore District, Tamil Nadu.

This is to certify that this project report entitled "DETECTION OF MELANOMA BY SKIN HAIR SEGMENTATION IN DERMOSCOPIC IMAGES", being submitted to the Auxilium College (Autonomous), Vellore, by Ms. SWETHA V., for the partial fulfillment for the award of Degree of M.Sc. Computer Science, is a bonafide record of work carried out by her, under our guidance and supervision. It has not been submitted for the award of any other degree.

Ør. LAVANYA S.,
Head and Assistant Professor,
PG Department of Computer Science,
Auxilium College (Autonomous),
Vellore-632 006.

Ms. NISHA PAULINE R.,

Assistant Professor (Guide), Department of Computer Science. Auxilium College (Autonomous), Vellore-632 006.

Submitted for the Viva-Voce Examination on 04:06: 2022

Examiners:

1) -

Sr. oya such -a

PRINCIPAL AUXILIUM COLLEGE (Autonomous) Gandhi Nagar, Veliore - 632 006. Vellore District, Tamil Nadu.

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I express my gratitude to **Ms. Nisha Pauline R.,** Assistant. Professor, Department of Computer Science, Auxilium College (Autonomous), Vellore, for her valuable support, guidance and suggestions throughout my project.

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Sr. Jy Buch - a PRINCIPAL AUXILIUM COLLEGE (Autonomous)

Gandhi Nagar, Vellore - 632 006. Vellore District, Tamil Nadu.