

PROJECT TITLE

Pneumonia Detection & Classification Using Machine Learning

Project Objective & Scope**OBJECTIVE:**

The objective of this project is to develop a machine learning model to detect and classify pneumonia from chest X-ray images. The project aims to assist healthcare professionals in early diagnosis, improve treatment planning, and reduce misdiagnosis.

SCOPE:

The project covers preprocessing of chest X-ray datasets, feature extraction using convolutional neural networks (CNN), training and validating the ML model, evaluating performance metrics, and creating a simple user interface for prediction and visualization of results.

(S)SDLC CHECK	Status
BRD (Planning)	
SRS (Design)	
Develop/Code	
Test/Bug Fix	
GO Live	

Business Impact

Customer	Revenue Model	TAM	SAM	SOM
Hospitals, Clinics, Diagnostic Labs	Subscription / Licensing	Global healthcare providers	Regional hospitals & labs	Local clinics & diagnostic centers.

Intellectual Property

The pneumonia prediction system and its models are original work and can be protected by copyright or patents.

#	Project Milestones	Name	Target Date
1	Data Collection & Preprocessing	Diviya Dharshini S	
2	Model Development (CNN)	Syed Ahmed Farmaan	
3	Model Evaluation & Optimization	Manoj S	
4	Deployment & User Interface Integration	Ragul A	

Risk	Mitigation Plan	What's Next	When
Insufficient or low-quality data	Augment data-set, use publicly-available data-sets	Model improvement and retraining with new data	
Overfitting of model	Use regularization techniques, cross-validation		