

SOLUTION ARCHITECTURE

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Team ID	Team - 592660
Project Name	<i>Detecting COVID-19 From Chest X-Rays Using Deep Learning Techniques</i>

SOLUTION ARCHITECTURE:

The solution architecture for "Detecting COVID-19 From Chest X-Rays Using Deep Learning Techniques" can be divided into the following components:

Data Collection and Storage:

Gather a diverse dataset of chest X-ray images, including confirmed COVID-19 cases and non-COVID-19 cases.

Store and manage the data securely, adhering to privacy regulations.

Preprocessing:

Prepare the data by resizing, normalizing, and augmenting the images to ensure consistency and quality.

Deep Learning Model Training:

Utilize the preprocessed data to train a deep learning model.

Train the model using labeled training data to learn the correlations between image features and their corresponding labels.

Model Validation:

Evaluate the trained model by assessing its performance on a separate test dataset.

Verify the model's ability to generalize to new data and confirm that it avoids overfitting the training data.

Model Deployment to Production:

Deploy the well-evaluated model to a production environment, which may include server deployment or integration with mobile devices for real-world usage.

Open-Source Models:

Contribute to open-source AI models to encourage collaboration and knowledge sharing in the medical community.

Solution Architecture Diagram :

