**Abstract**

Pneumoniaaccountsforasignificantproportionofpatientmorbidityandmortality.Pneumoniaisaninfectionthatinfluencestheairsacsinoneorbothlungs.Earlydiagnosisandtreatmentofpneumoniaiscriticaltopreventingcomplica-tionsincludingdeath.ChestX-raysarethemostcommonimagingexaminationtoolusedinpractice,criticalforscreening,diagnosisandmanagementofavarietyofdiseasesincludingpneumonia.

However,twothirdsoftheglobalpopulationlacksaccesstoradiologydiag-nostics,accordingtoanestimatebyWorldHealthOrganization.Detectingpneumoniainchestradiographycanbedifficultforradiologists.TheappearanceofpneumoniainX-rayimagesisoftenvague,canoverlapwithotherdiagnosisandcanmimicmanyotherbenignabnormalities.Thesediscrepanciescauseconsiderablevariabilityamongradiologistsinthediagnosisofpneumonia.

Inthisproject,buildsamethodthatcanautomaticallydetectpneumoniafromChestX-ray.Forthat,hereusedadvancedMachineLearningtechniquesandDeepLearning.ByusingCNN(ConvolutionlNeuralNetwork)thefeaturesintheimagecanbeautomaticallyextracted.BasicallyinthisprojecttheusercaninputachestX-rayandtheoutputisthattheinputhavepneumoniaornot.