Efficient Water Quality Analysis and Prediction using Machine Learning

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What is the aim of the project?	The suggested methodology validates the viability of its implementation in real-time water quality detection systems by achieving reasonable accuracy with a limited number of parameters.
What are the boundaries of the problem?	The problem has no boundaries because anyone who drinks tainted or unpurged water will suffer the consequences.
What is the issue?	The only way to detect the problem is to collect samples of the polluted water, study that water utilising databases, and then identify the most significant behavioural risk factors for this disease.
Where is the issue coming from?	It primarily affects those who drink river water who live by rivers. People who already have an illness would be affected if there were any dangerous chemicals in the water.

Why is it important that we fix the problem?	Since growing urbanisation and industrialization have caused the water quality to deteriorate at an alarming rate and result in debilitating diseases, it is imperative to design an application that can detect the sickness. The traditional method for estimating water quality involves costly, time-consuming lab and statistical analyses. In this study, we are merely using data science to discover the compounds.
Which solution can be used to address this issue?	Using a deep learning prediction model called Bi-S-SRU (Bi-directional Stacked SRU), this work seeks to forecast several aspects of water quality.
What methodology was used to solve the issue?	Nine variables—pH, hardness, solids, chloramines, sulphate, conductivity, organic carbon, trihalomethanes, turbidity, and pH—are used in our work to assess the water quality.