

MINI PROJECT
MORTALITY PREDICTION

Arun Thomas
S₅ MCA Regular
Roll No : 13

MORTALITY PREDICTION

Mortality prediction in the Intensive Care Unit(ICU) is considered as one of critical steps for treatment of patients in serious condition. It is a big challenge to model time-series variable for mortality prediction in ICU, because physiological variables such as breath rate and blood pressure are sampled with in consistent time frequencies. In addition, it is difficult to capture the timing changes of clinical data and to interpret the prediction result of ICU mortality. To deal with these challenges, in this paper we propose a novel ICU mortality Prediction Algorithm combining LSTM(Long Short-Term Memory) model with supervised learning.

Modules:

1. Testing
2. Training
3. Prediction

1. Testing Module

We propose 37 time-series variables related to patients signs.

2. Training Module

We train and evaluate our model using a real-world data set containing 4000 ICU patients experiments results show that our proposed method can significantly outperform many baseline methods.

3. Prediction module

We construct the bidirectional LSTM model with supervision technique to quality reflect significant changes in patient's sign.