Real-time Cryptocurrency Trading Suggestion System Using Machine Learning

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Introduction

Cryptocurrency have become very popular among investors due to its **high volatility** and **24/7** market which can generate more potential profits than traditional commodities.
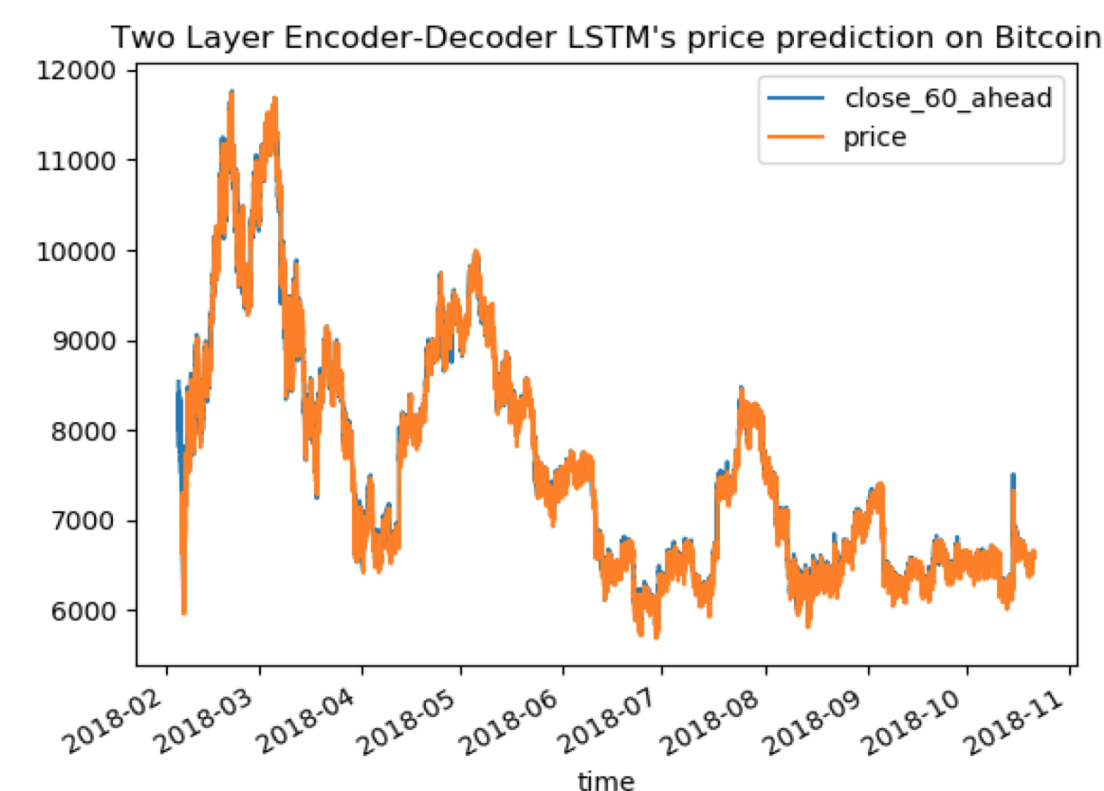
This project aims to implement a **real-time price prediction mobile portal** to seize every opportunity of making profits and reducing loss.

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among your Trade

Objectives

Forecast — Generate trading suggestions using machine learning models and financial models

Portal — Construct mobile application for users to visit our trading suggestions

Evaluation — Evaluate performance of the 3 LSTM models on predicting the Cryptocurrency data.

Machine learning Models

3 Types of LSTM models:
- Encoder-Decoder LSTM
- Bidirectional Encoder-Decoder LSTM
- Attention-based Encoder-Decoder LSTM

Two Layer Encoder-Decoder LSTM's price prediction on Bitcoin

Cloud Database — Machine Learning Models — Mobile App Portal

Cryptocurrency Data — Financial Models

Web Application

BTC
Bitcoin
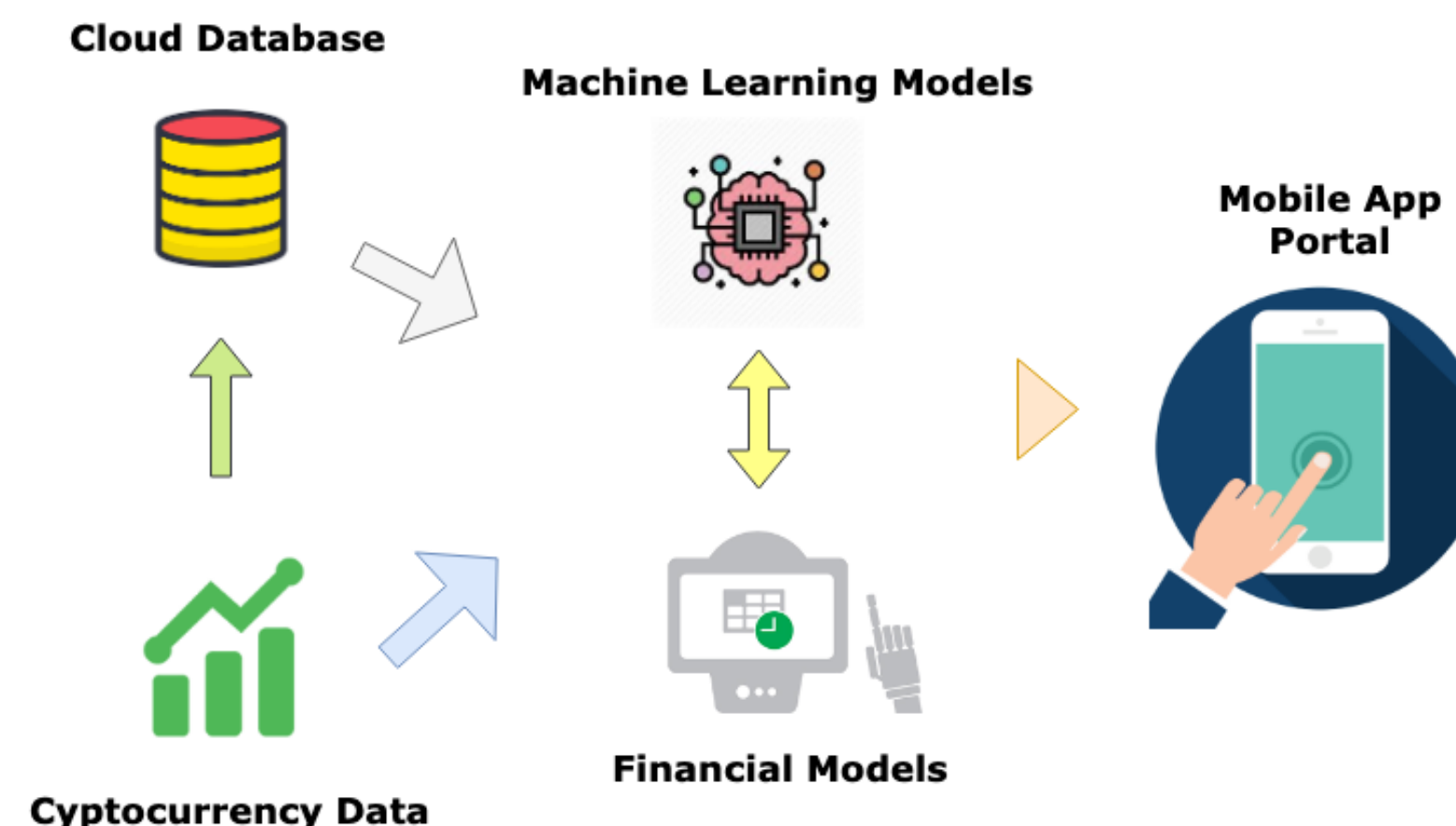Now : 5178.12155306   60 mins: 5319.20

XRP
Ripple
Now : 0.32072557   60 mins: 0.302195

XRP
BTC

Defensive portfolio means that we take a more defensive strategy on trading.

A React Native developed mobile application shows the predicted prices and trading strategies which receiving from our self-developed servers.

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Aggressive:BTC=100.0%XRP=0.0%
Defensive: BTC=75.76%XRP=24.24%

Push Notification provides real-time predictions and trading strategies to users' mobile devices without using the mobile application currently