**Project: RoC Company Analysis**

**Phase2:Innovation**

**Time series forcasting in artificial intelligence**

Time Series pertains to the sequence of observations collected in constant time intervals, be it daily, monthly, quarterly or yearly. Time Series Analysis involves developing models used to describe the observed time series and understand the "why" behind its dataset.

**Ensemble methods for improving RoC**

Ensemble methods aim at improving predictability in models by combining several models to make one very reliable model. The most popular ensemble methods are boosting, bagging, and stacking.

**Ensemble technique in machine learning**

Ensemble methods is a machine learning technique that combines several base models in order to produce one optimal predictive model . To better understand this definition lets take a step back into ultimate goal of machine learning and model building

**Deep learning architecture to improve the prediction**

Deep learning programs have multiple layers of interconnected nodes, with each layer building upon the last to refine and optimize predictions and classifications. Deep learning performs nonlinear transformations to its input and uses what it learns to create a statistical model as output.

**Types of deep learning architecture**

* RNN
* LSTM.
* GRU.
* CNN.
* DBN.
* DSN.

**AI algorithms**

So, at the essential level, an AI algorithm is the programming that tells the computer how to learn to operate on its own. An AI algorithm is much more complex than what most people learn about in algebra, of course. A complex set of rules drive AI programs, determining their steps and their ability to learn.

**How to solve this problem**

1. Step 1: Define the Problem. What is the problem? ...
2. Step 2: Clarify the Problem. ...
3. Step 3: Define the Goals. ...
4. Step 4: Identify Root Cause of the Problem. ...
5. Step 5: Develop Action Plan. ...
6. Step 6: Execute Action Plan. ...
7. Step 7: Evaluate the Results. ...
8. Step 8: Continuously Improve.

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