

Leveraging Machine Learning and Artificial Neural Networks for Stock Price Prediction

Carolina Hoffmann-Becking

Founder of an early stage startup - Cerebro - developing Machine Learning algorithms, Hong Kong

Abstract:

The presentation starts off with providing an introduction on why AI is relevant today tracing back to algorithmic advancements, Big Data and Processing Power. It then sets the context of practical examples for AI in Finance. At the heart of the presentation is the walkthrough on Machine Learning Algorithms for Stock Price Prediction and its limitations such as statistical stationarity and time series datasets leading to the introduction and architecture of Recurrent Neural Networks. Finally closing up with Ensemble Theorie the optimisation approach in the field of AI.

Method:

The presentation provides an introduction into the sensor suite and sources of data of a self driving car. It also provides an end to end overview on AI enabled tasks of the autonomous vehicle ranging from collecting data, processing and finally steering the car. At the heart of the presentation is the toolset and walkthrough on lane line detection based on camera images and videos using Machine Learning. Finally closing up with an overview competitive comparison of key players and their vision for the future.

Keywords: Robotics, AI Camera, Video Machines

Experiment:

The basic and most profound purpose of science is finding, determining and solving the problems and issues that humanity faces. The aim of this paper is to introduce the reader to certain medical issues and aware them of the important role of fourth generation technology, robotics and artificial intelligence, in the well being of general public in the domain of health care. This paper deals with study extracted from the A.I cane robot for prevention of falling

and stumbling for old, semi-disabled and blind people. The problem that we are facing here is the issue of walking faced mostly by senior citizens and those with neurological complications that leads to imbalance in their lower limb movement and can cause fatal falls and spinal injuries. This paper tries to solve this issue by introducing a cane robot that is very similar to a stick held by old people but with one difference, it has the ability to bounce back from a possible fall by making a decision on its own based on a person's feet movement and leg movement and it make it possible by using COP-FD method and LM- FD method. These two methods detects disturbance in feet and person's leg motion respectively and activates a system known as Falling prevention control system (FPC) to prevent the possible fall. This self decision making ability of this robot is the very definition of A.I. Categorically a group of 4 subjects were made to go through four experiments to ensure the fall

Conclusion:

Artificial Intelligence and Machine Learning are products of both science and myth. The idea that machines could think and perform tasks just as humans do is thousands of years old. The cognitive truths expressed in AI and Machine Learning systems are not new either.

Results:

Robots increase productivity and enable an organization to become or remain competitive through benefits such as faster product development and delivery. It also enables organizations to 'reshore' or bring back part of their supply chain that they have previously outsourced to cheap-labor countries