Diploma project

Smart Automotive Advertisement system (SAAS)

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Theme: Smart Automotive Advertisement system (SAAS).

The main idea of ​​the diploma work is to provide high-quality advertising using elements of artificial intelligence. This concept will use computer vision to analyze the contingent of buyers when they arrive and, based on these observations, will provide appropriate advertising for the relevant group of people.

This system will analyze the time of arrival of the buyer, gender and age, and on the basis of this data, and on the basis of data on purchases and transactions made, it will display at certain intervals the advertising of the contingent of persons who are currently in.

I will explain with an example, let's say we have some kind of store and at the entrance to this store, a surveillance camera depends everywhere, this camera scans faces and, based on this data, determines the age and gender of customers. For example, at lunchtime, the likelihood of the arrival of business and busy people who went out for lunch is much higher, while grandparents would like a group of people to come at other times. A group of children will most likely come in the evening with their parents after work. Thus, it turns out that there is no need to display advertising for expensive products in the daytime, since the target audience with this money will come only in the evening, or at lunchtime and vice versa, there is no point in introducing advertising for children at a time when the children are all at school.

Thus, we want to offer a system based on computer vision using artificial intelligence to automate advertising processes and improve sales efficiency in business.

Our development can be integrated with both audio advertising and video advertising output on large monitors or on conventional advertisements.

From a technical point of view, for the implementation of this project it is necessary:

Hardware: CCTV camera access to transactions made in the store and the time of these transactions is optional, as well as a server that will process this information and advertising display devices such as audio or video.

From the point of view of software, a machine learning system is needed, preferably a neural network that will recognize faces based on this system, a system for age recognition and division into certain groups will be created, this system will analyze.

At what time the frequency of which age group is large, on the basis of this, the neural network will be display relevant advertisements for a specific age group at specific intervals.

The research results showed that there are no analogues of this startup now.