



ParkLess

AI solution to decrease the number of cars parked in the city center
without raising the prices

+7 985 9096086
rnd-42.com

Company overview

- RnD-42 LLC develops AI-powered behavior modelling solutions to predict the probability of using the paid service for each customer according to his previous consumption
- We already have two successful personalized pricing launches on toll roads
- We managed to increase traffic and revenue of the toll road operator by 6% and 4% respectively
- Accuracy of our prediction models is about **90%**

Problem overview

1. A lot of big cities suffer from cars in the city center as they produce fumes and make city infrastructure uncomfortable for pedestrians
2. Usually, streets in the historic center are quite narrow so there is not enough space for both parking areas and big pavements
3. Therefore, governments try to put cars away from the city center

Common solutions

Taxes for entering the city center

Small amount of money you pay each time you go to the city center by car. Applied in Rome, London, Stockholm, etc.

High prices for parking

Usually it costs 5-15\$ per hour to park the car in the center of big cities. This price seems unreasonable, but governments declare that it is necessary to force citizens to use other means of transport.

These strategies work but make citizens annoyed by high prices. We provide two solutions that will both decrease the traffic in the city center and make parking service cheaper for citizens.

ParkLess-Weekly solution

- Using our AI-powered technology for each citizen at the beginning of each week we predict the number of times he is going to park in the city center during the next week according to his consumption history.
- After that we will provide him a personal offer that says that he will get a cashback for parking service if he parks **less** than this predicted amount.
- At the end of the week, we will pay him a cashback if he did not exceed this limit.

ParkLess-Instant solution

- For every citizen after he parked in city center we can predict the probability of him parking there again during the next 24/48 hours
- If this probability is considered as high, we give him a personal offer which says that he will get the cashback for his current parking if he will **not** park in the city center again during the next 24/48 hours
- This model is simpler than the previous one, so the accuracy of predictions is likely to be higher, although the idea is almost the same

Solution impact

The key idea of these solutions is that customer will only get the cashback if he parked less times than he planned. In such a way we will provide benefits for people who decide to use personal cars not as often as they used to.

Deploying this program will likely lead to smooth traffic reduction and should not increase discontent in the society as we do not raise the prices.

What do we need to start?

Data

To train our models we need parking bills that contain information about when and where customers parked their cars during the defined period. We **do not** need to identify customers so this data should be anonymized. As for the length of the period, in the ideal case it should be about 1 year but several months is also acceptable.

Infrastructure

To run this service we need to integrate into the existing parking management system of the city. Mandatory requirements are the availability to collect information from all public parking areas in several districts and channel to deliver offers to customers. It could be a mobile app that people use to pay for the parking or phone-number attached to the license plate number.

What will we do?

We can hold a Prove of Concept pilot project in the form of A/B test:

1. We will gather data, train models and ensure that accuracy of predictions is enough to start the experiment
2. Then we will select some users (6-18k) and divide them into two groups A (test) and B (control)
3. After that we will only provide personal offers for people from the test group for 2-3 months
4. At the end of the experiment, we will check whether we managed to decrease the consumption in the test group compared with the control group to prove that the concept is viable.

You can find more information about conducting pilot projects at our website <http://rnd-42.com/pilot/>