Mobile phone pricing forecast Project proposal

Overview

Mobile phones have become one of the necessities of people and are closely related to life. Since the birth of mobile phones, the market has expanded to the extreme. Therefore, mobile phones with different parameters are constantly on the market. The range of mobile phone price gap becomes very large. Apart from the brand effect, it is the configuration of the phone itself that determines the price of the phone， include memory, screen size, camera, battery life, 5G and countless functions.

The content of this project is by analyzing the mobile phone parameters and prices, find which parameter is the most relevance to mobile phone price. Then build a model that predicts the price of mobile phones based on mobile phone parameters. The purpose of this project is Small and medium mobile phone companies provide the parameter structure of the mobile phone market so that they can better position their products.

The dataset used in this project are all provided by Kaggle.

Project process

Data wrangling

* Clean and drop the missing value in the dataset
* Reorganize the target value (price) and independent parameters into a new data frame
* May create a new variable screen size base on mobile width and height
* Preliminary visualization table and plot about price and parameter distribution

Exploring data

* Find relationship between parameter and price (scatter plot)
* Define relevance rate (heat map)
* Define importance level (random forest model)

Model

* Training different models to predict the price and compare performance