

# Estimation modelling of project development for SKIT Consulting LTDA

TEAM 70

18%

IT Market  
Grew throughout last 10 years

19,1%

Software Sector  
Sold US\$1,08 Billion

15,4

IT Services  
Sold US\$3,06 Billion

## PROBLEM

It is expected to be able to predict the time it may take to execute a project, making use of the company's historical information.

## OBJECTIVES

**Usability**  
Estimate the number of hours that a software development project may take

**Importance**  
Improve the productivity, performance and quality of their projects.

**Vision**  
Offer a product (model) that helps the industry to commit to times consistent with the complexity of the service or product required

## OUR APPROACH

**ACTIVITY RECORDS**  
The historical basis is an activity log that relates the daily hours spent.

70.132

8

163

91

**TOTAL PROJECTS**  
In the activity base we find information about this amount of projects.

**VARIABLES FOR ANALYSIS**  
The base delivered by the company had 15 variables but only 8 are for modeling.

**MODEL PROJECTS**  
Filters were made of projects that were not closed or that were very old and had atypical behavior.

## MODELS

RMSE

1.3009

MULTIPLE  
LINEAR  
REGRESSION

1.0165

RANDOM  
FOREST

0.8948

XG BOOST

### CONSTRUCTION OF VARIABLES:

Transformations of the 8 initial variables were made and finally 85 variables were obtained.

### CLEANING DATA

It was carried out the cleaning of the outliers in the variables to avoid noise in the estimation of the model.

### TARGET VARIABLE TRANSFORMATION

Transformation of the response variable was performed since it presented better adjustment in all the techniques tested.

## CONCLUSIONS



Use only projects that have been completed.



It is recommended to use recent projects.



Calibrate model with more information for greater accuracy.

## APPLICATION

