ARTICLE TYPE

Casual Mobile Game R7 Retention Action Reccomendation

The Problem

In a casual mobile game with slot machine dynamics where a first week has a 7-day strike bonus, a lot of the players are churning as there is a difficult jump between the fifth and sixth day to push for monetization which cases also a churn. The client hypothesis from another test on the game is that a pop-up with a bonus after a random failed game would make clients happier and not turn as they have more virtual money to bypass the first week in the game.

The Solution

The project is divided into two main stages. For the first stage, we used the historical churn data and the user's behavior in the game data from the client to develop a costume player's churn model and player's segmentation. Using both, we also made an explainable and simply segment-based churn model that was presented to the client's team to make the decision-making process of the AI model somewhat understandable. Next, as the second phase, together with the client, we deployed an A/B that was driven by automatic machine learning for test-case allocation of players in real-time to obtain the results as quickly and with as little amount of players as statistically possible. The results of the A/B are used to develop a production-ready (i.e., real-time server with the algorithm) which allocates a segment-level personalized bonus to a user on their fifth/sixth day in the game to reduce R7.

The Outcome

Initially, the deployed algorithm was tested as part of a 14-day long A/B testing including around 2800 players, resulting in statistical improvements in R7 with a p-value of < 0.01. A longer test of the additional month with the model deployed for the entire game's player base shows a 2.8% decrease in R7.