

1. As an example of CTR problem, I took real dataset from Kaggle [competition](#) to show the performance of the model. That dataset contains a wider set of features that you've described in the task, but they have the same nature. And thus solves the same problem. So, I decided to use it as an example.
2. I'd use [Google Cloud ML Engine](#) for that purpose. It's part of Google ecosystem, as well as tensorflow, BigQuery and bunch of other solutions for ML, so it will perfectly fit the problem you've suggested.  
This service allowing you to deploy built tensorflow model and provides simply configurable API to use the model as standalone service.
3. Google Cloud ML Engine looks like a silver bullet in this case because it can take any TensorFlow model and perform large-scale training on a managed cluster. Additionally, it can also manage the trained models for large-scale online and batch predictions. Your trained model is immediately available for use with our global prediction platform that can support thousands of users and TBs of data. The service is integrated with Google Cloud Dataflow for pre-processing, allowing you to access data from Google Cloud Storage, Google BigQuery, and others.