

# Click Through Rate Prediction

Based on e-Commerce Dataset From Taobao.com

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# Motivation & Objective

## Motivation

- Online Ads in Digital Marketing

## Objective

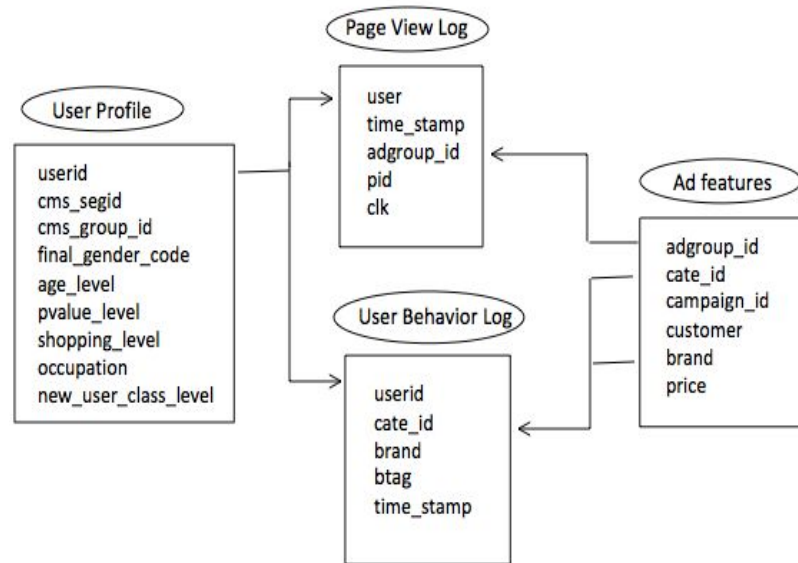
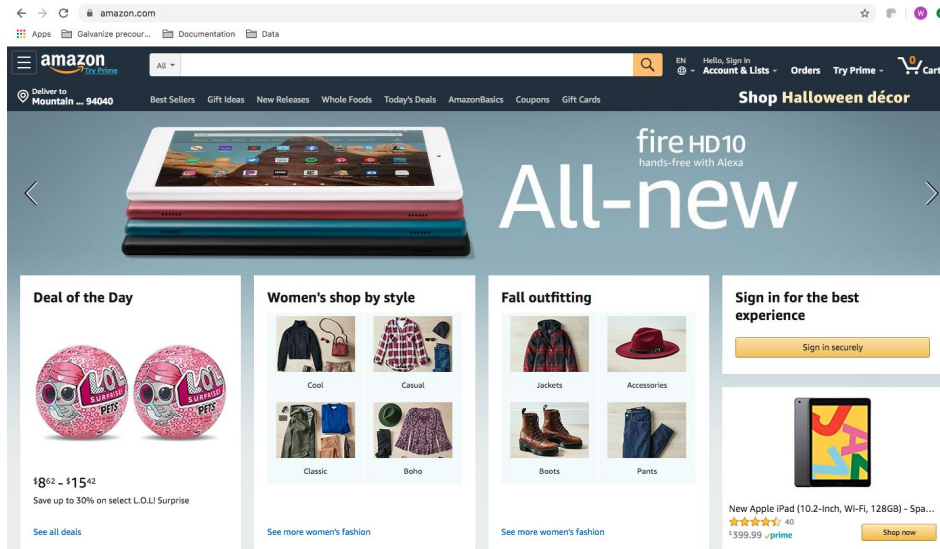
- Predict the click through rate



# Data Analysis

What we have?

What does each feature mean?



# Data Analysis

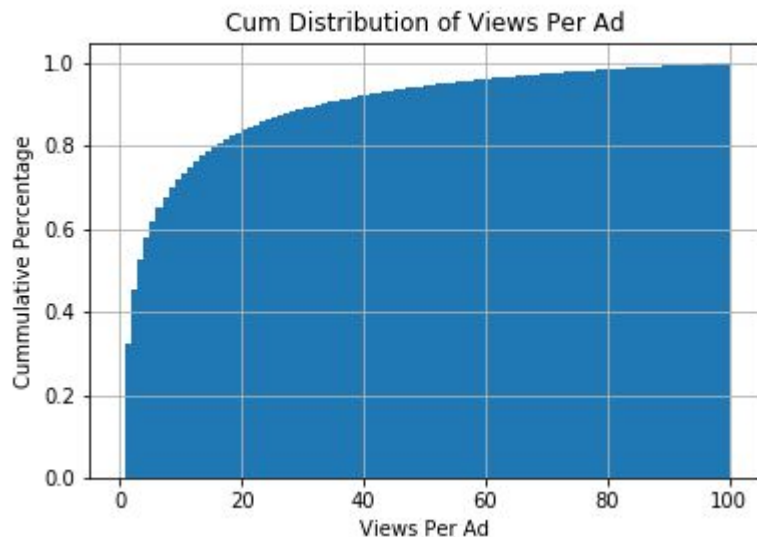
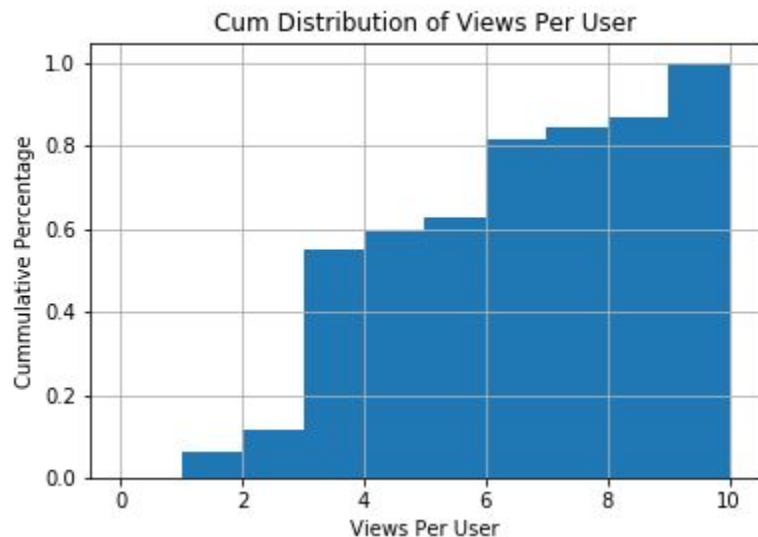
- **Display/click logs:**
  - 2017-5-5 to 2017-5-13 - 22 million logs, 1.1 million users randomly sampled from Taobao.com. Overall, 5% click
- **User behavior logs:**
  - 2017-4-21 to 2017-5-13 - 723 million logs, 22 days behavior from the users in display/click logs dataset

## Display/Click Info (Combined Table)

user	1141729
adgroup_id	846811
pid	2
clk	2
time	662061
cate_id	6769
campaign_id	423436
customer	255875
brand	99814
price	14861
cms_segid	97
cms_group_id	13
final_gender_code	2
age_level	7
pvalue_level	3
shopping_level	3
occupation	2
new_user_class_level	4

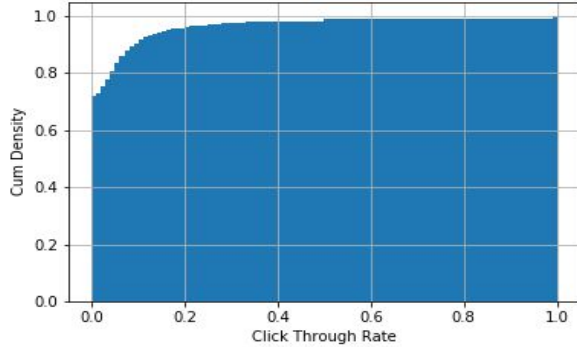
# Data Analysis

## Page Views

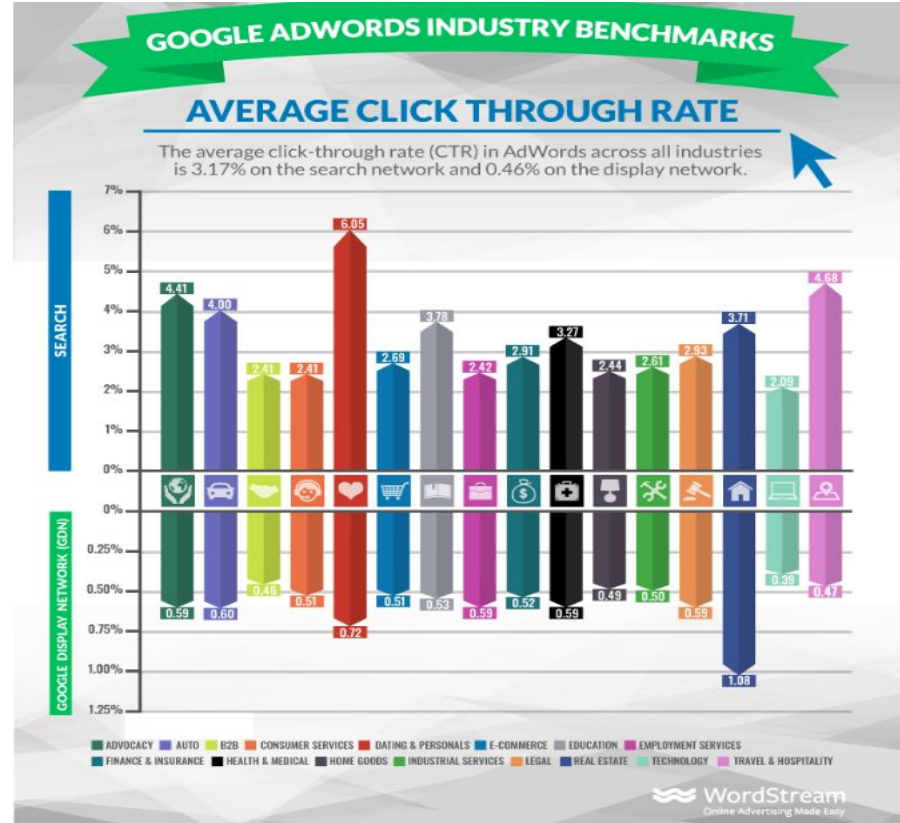
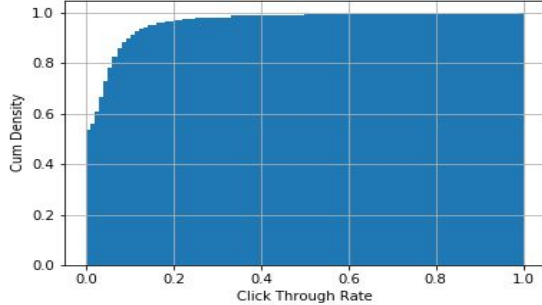


# Data Analysis

Distribution of Click Through Rate By Ad

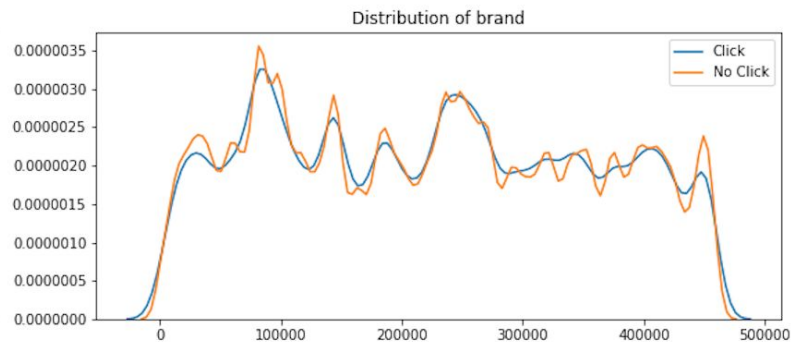
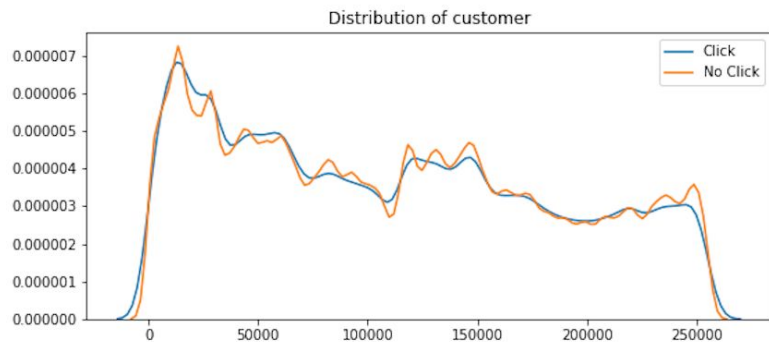
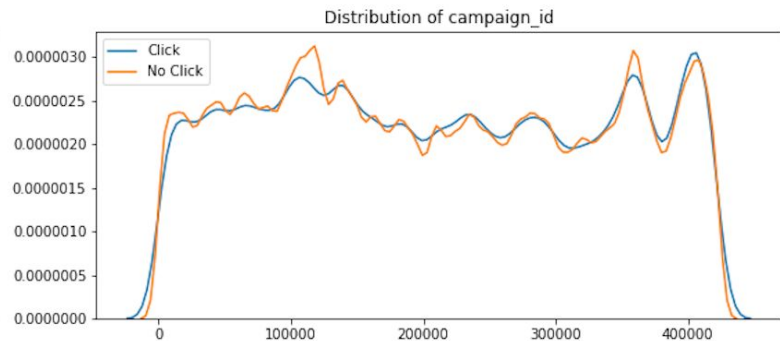
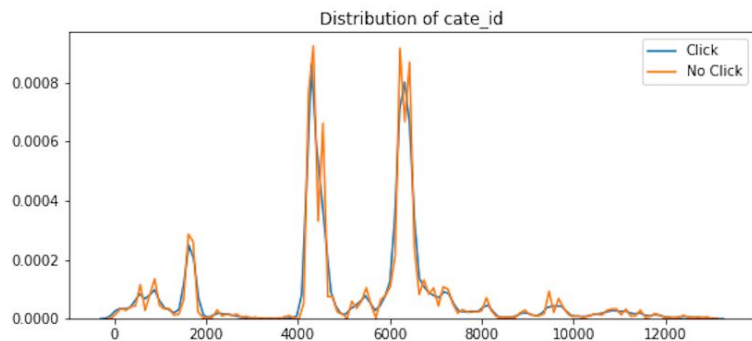


Distribution of Click Through Rate by Advertiser



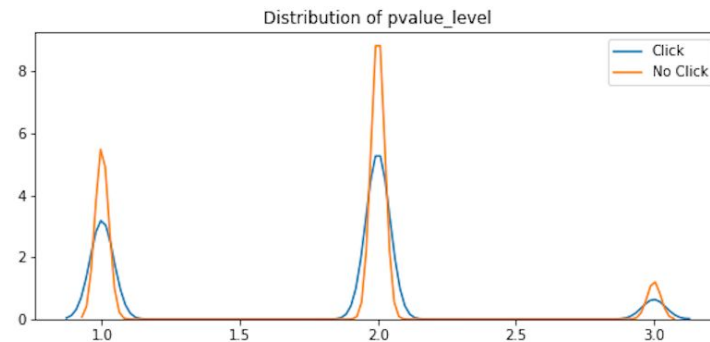
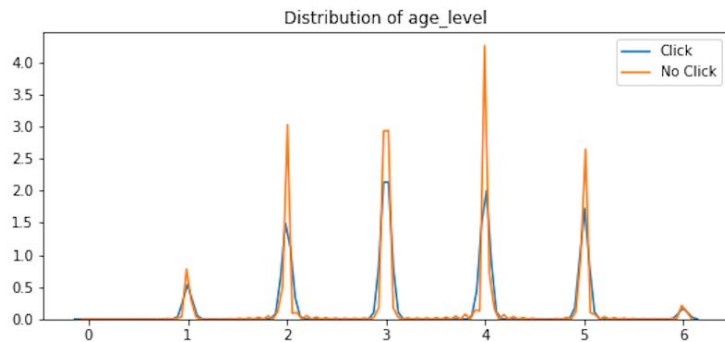
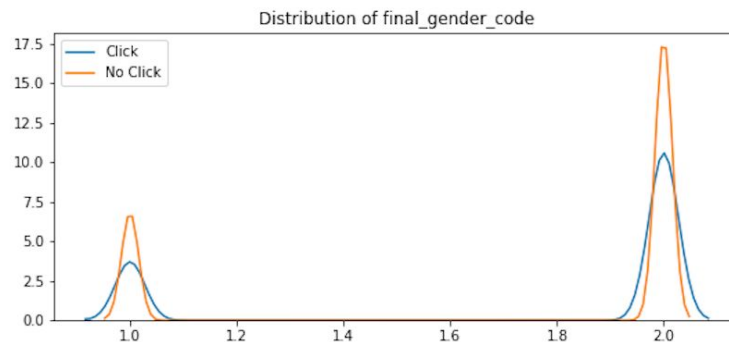
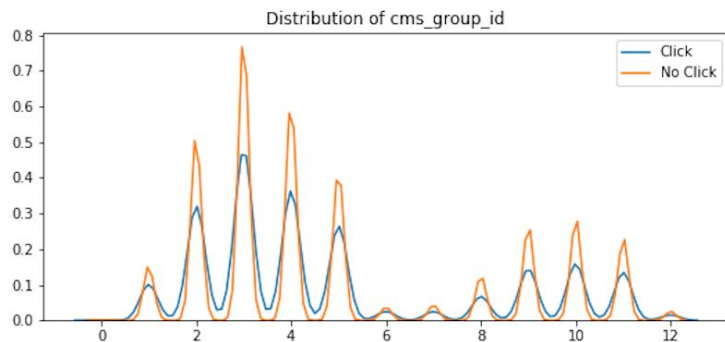
# Data Analysis

## Feature Exploration



# Data Analysis

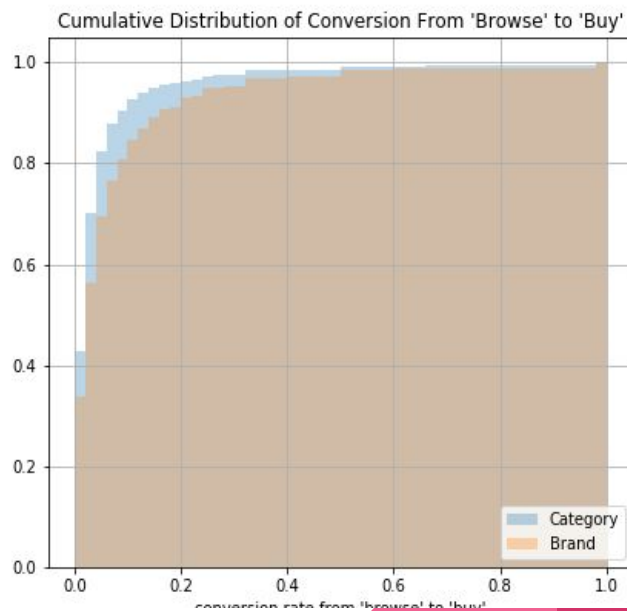
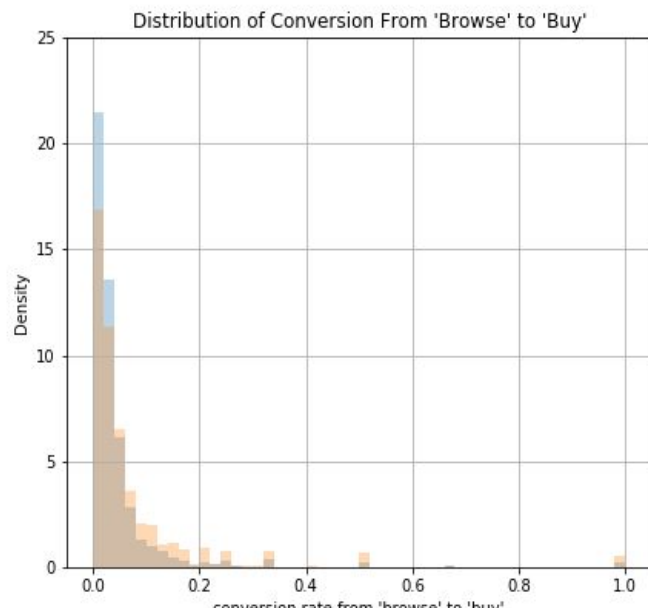
## Feature Exploration



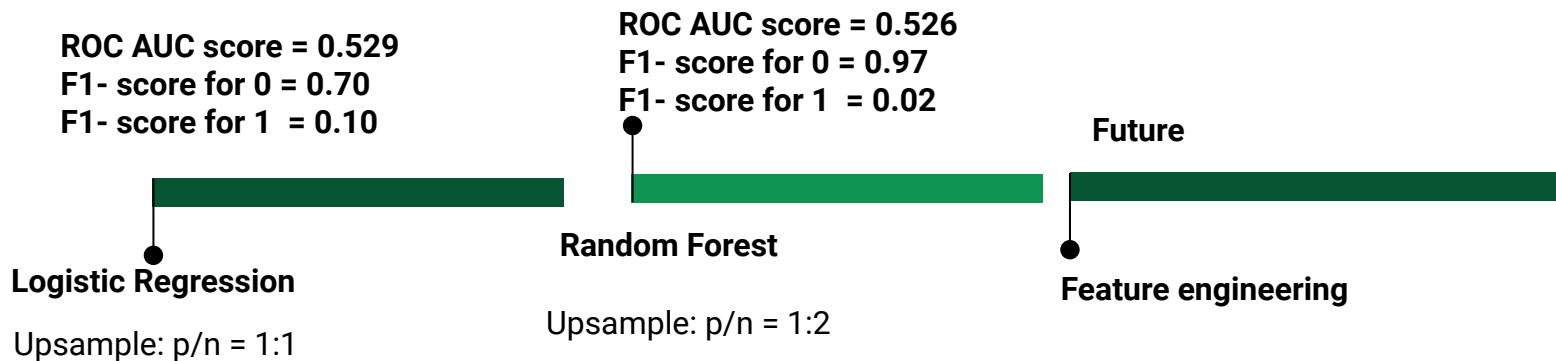


# Data Analysis

## Conversion From “Browse” To “Buy”



# Modeling



**Question?**

**Thank You!**

