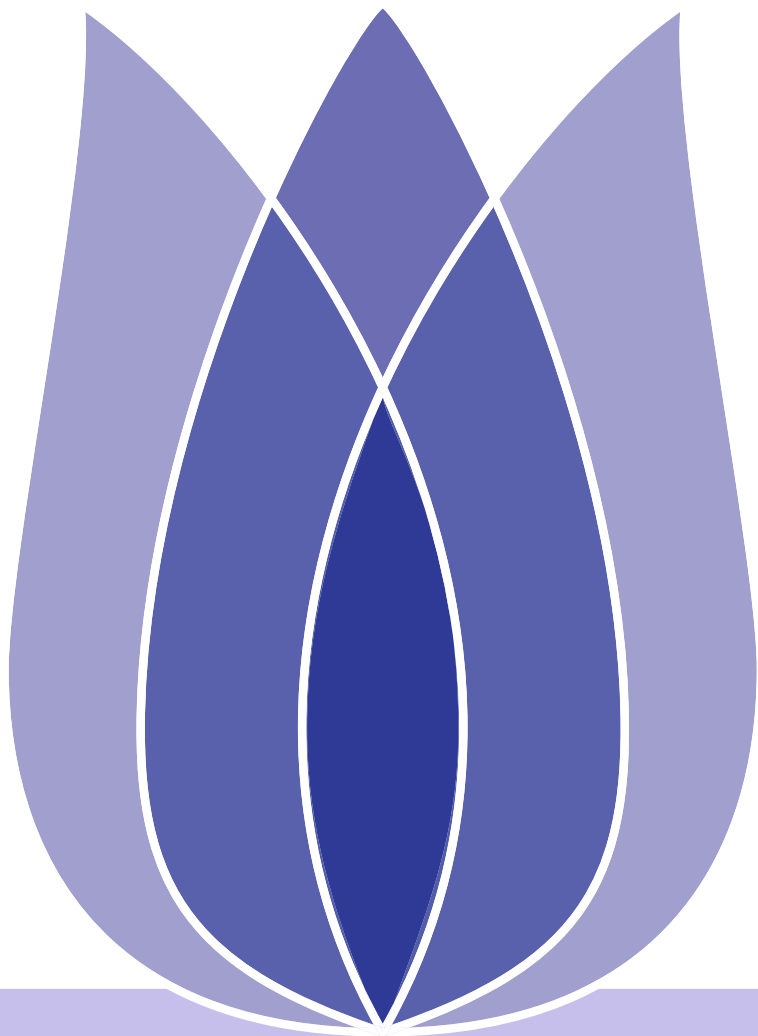


The mid-term report

Jincai Ma

Xi'an Shiyou University

September 28, 2020





Introduction

Introduction

Data Description

Data Visualization

- The bike-sharing system is a way to rent bikes through a city-wide network of kiosk locations, automatically gaining membership, renting and returning bikes. People can rent a bike from one place and return it to another as needed.
- Historical car records combine date, weather, temperature, humidity and other factors to predict the bike-sharing program needs in Washington.



TULIP

Team for Universal Learning and Intelligent Processing



■ Descriptive statistics of the data

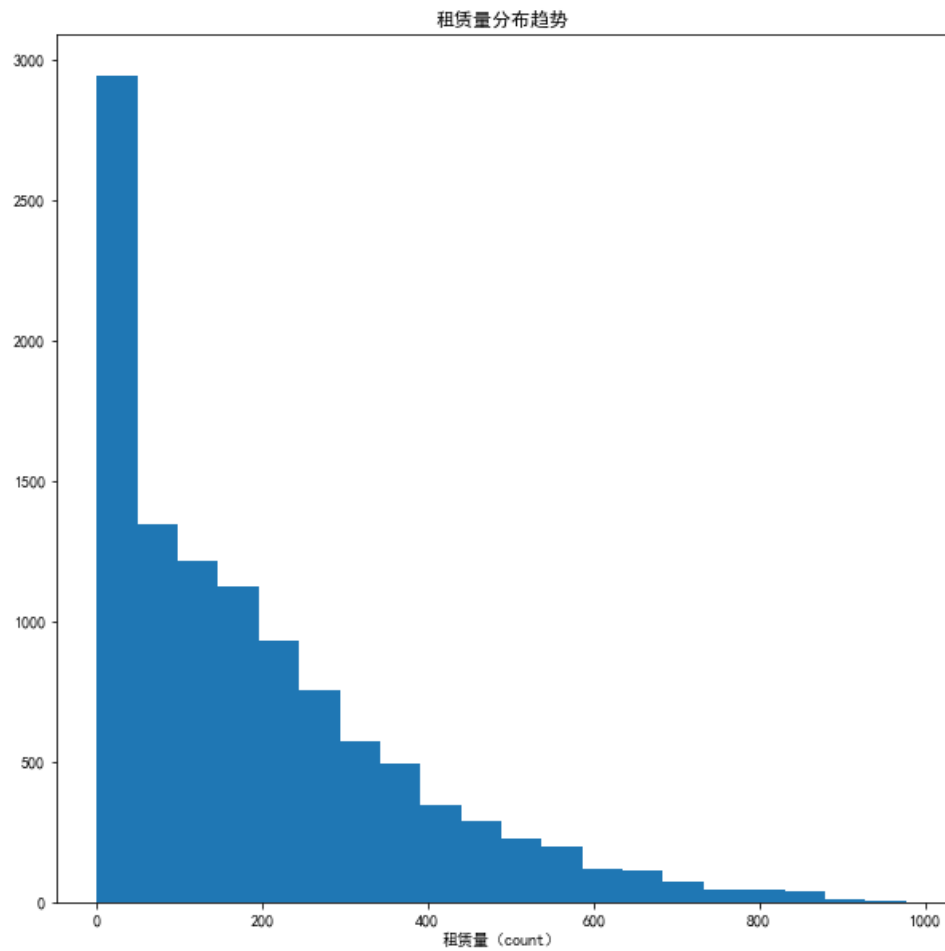
	season	holiday	workingday	weather	temp	atemp	humidity	windspeed	casual	registered	count
count	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000	10886.000000
mean	2.506614	0.028569	0.680875	1.418427	20.23086	23.655084	61.886460	12.799395	36.021955	155.552177	191.574130
std	1.116174	0.166599	0.466159	0.633839	7.79159	8.474601	19.245033	8.164537	49.960477	151.039033	181.144450
min	1.000000	0.000000	0.000000	1.000000	0.82000	0.760000	0.000000	0.000000	0.000000	0.000000	1.000000
25%	2.000000	0.000000	0.000000	1.000000	13.94000	16.665000	47.000000	7.001500	4.000000	36.000000	42.000000
50%	3.000000	0.000000	1.000000	1.000000	20.50000	24.240000	62.000000	12.998000	17.000000	118.000000	145.000000
75%	4.000000	0.000000	1.000000	2.000000	26.24000	31.060000	77.000000	16.997900	49.000000	222.000000	284.000000
max	4.000000	1.000000	1.000000	4.000000	41.00000	45.455000	100.000000	56.996900	367.000000	886.000000	977.000000



Data Visualization

- Introduction
- Data Description
- Data Visualization

- The standard deviation of the number of leases you have to predict at the end is very large. So let's look at the distribution by drawing it.



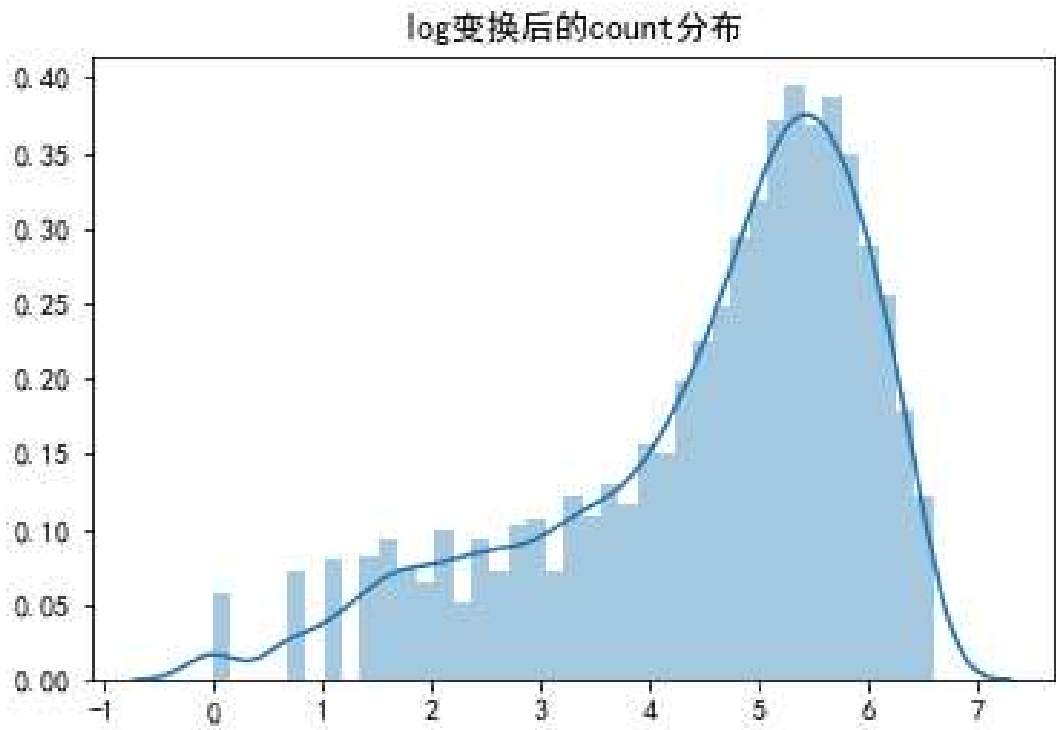
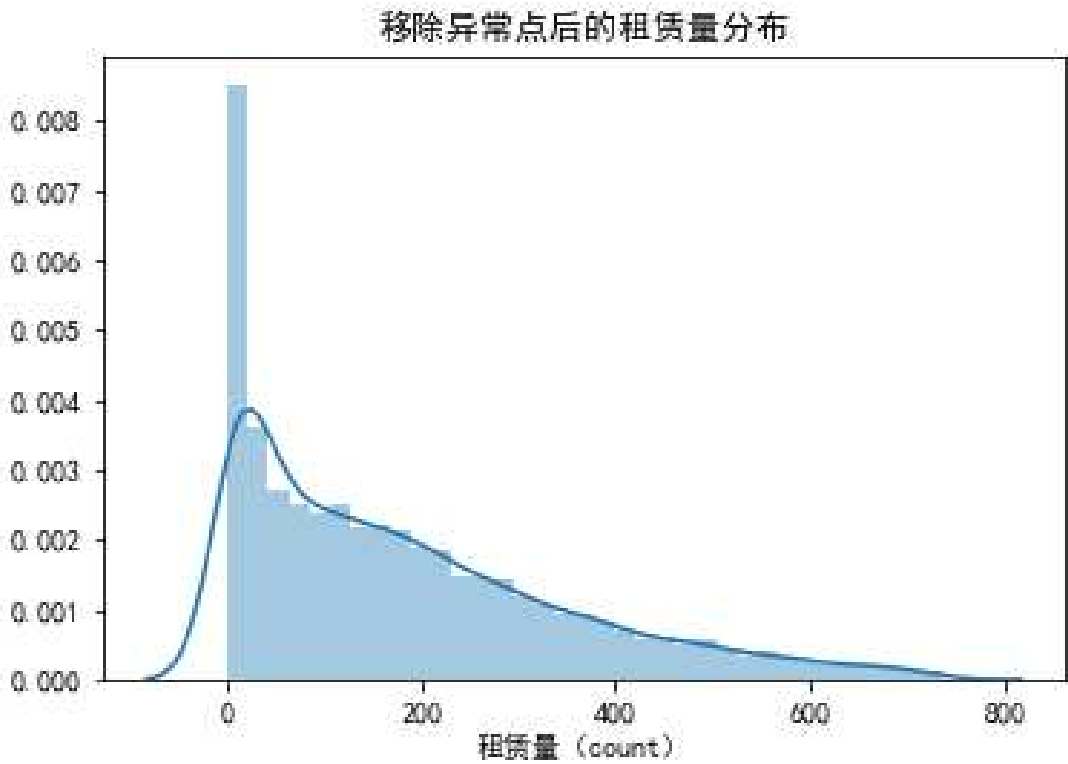


Data Visualization

- Introduction
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■ Exclude data other than three standards,log of count

	season	holiday	workingday	weather	temp	atemp	humidity	windspeed	casual	registered	cour
ount	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000	10617.000000
nean	2.499294	0.029104	0.676180	1.421871	20.073588	23.490210	62.138363	12.779423	34.301309	142.816144	177.11745
std	1.121325	0.168107	0.467954	0.636097	7.779602	8.466483	19.238023	8.175715	47.716238	128.456579	158.26198
min	1.000000	0.000000	0.000000	1.000000	0.820000	0.760000	0.000000	0.000000	0.000000	0.000000	1.000000
25%	1.000000	0.000000	0.000000	1.000000	13.940000	16.665000	47.000000	7.001500	4.000000	34.000000	40.000000
50%	2.000000	0.000000	1.000000	1.000000	20.500000	24.240000	62.000000	12.998000	16.000000	114.000000	139.000000
75%	4.000000	0.000000	1.000000	2.000000	26.240000	31.060000	78.000000	16.997900	46.000000	212.000000	271.000000
max	4.000000	1.000000	1.000000	4.000000	41.000000	45.455000	100.000000	56.996900	355.000000	652.000000	663.000000





■ The impact of hour,month,season,year

