Plots

Bank <- read.csv("~/Desktop/MSA\_6440/customer\_churn/data/processed/BankChurners\_filtered.csv")

## Exploratory Plots

# Plot of attrition flag  
plot(Bank$Attrition\_Flag)  
library(plyr)  
count(Bank, 'Attrition\_Flag')

## Attrition\_Flag freq  
## 1 Attrited Customer 1113  
## 2 Existing Customer 5968

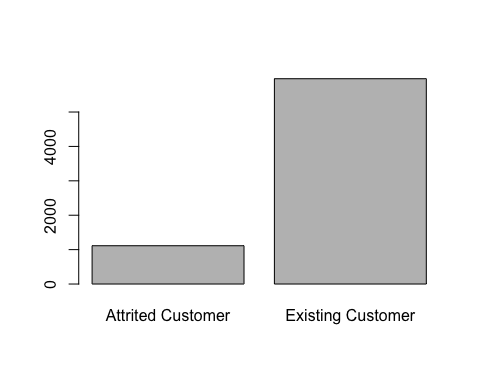
1113/7081 # Percent customer attrition

## [1] 0.1571812

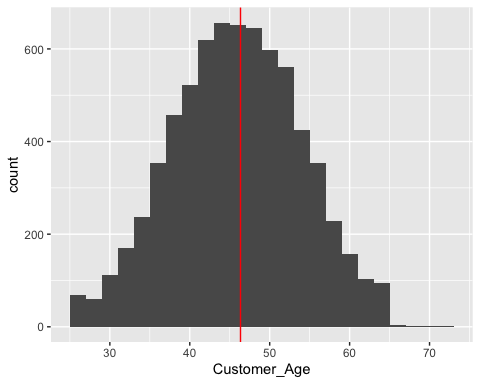
count(Bank, 'Card\_Category')

## Card\_Category freq  
## 1 Blue 6598  
## 2 Gold 81  
## 3 Platinum 11  
## 4 Silver 391

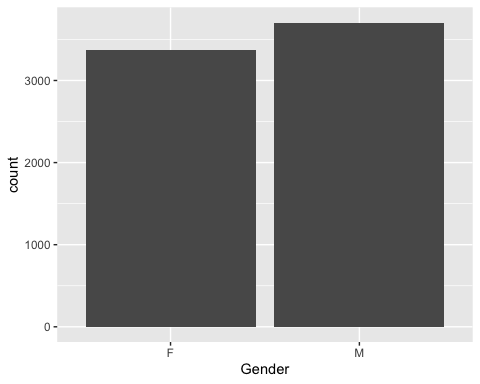
library(ggplot2)



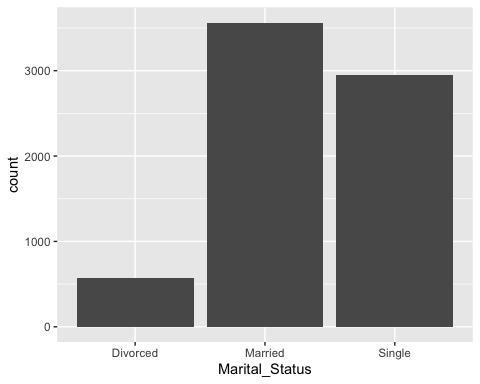
par(mfrow=c(2,2))  
# Histogram of customer age  
ggplot(Bank, aes(Customer\_Age)) + geom\_histogram(binwidth = 2) + geom\_vline(aes(xintercept = mean(Customer\_Age)), col = "red")



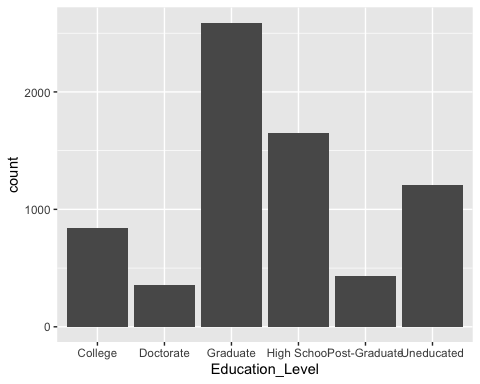
# Plot of gender  
ggplot(Bank, aes(Gender)) + geom\_bar()



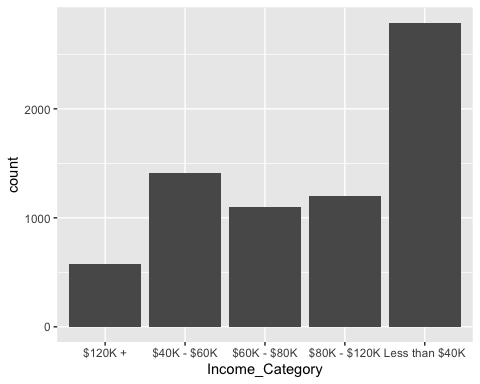
# Plot of marital status  
ggplot(Bank, aes(Marital\_Status)) + geom\_bar()



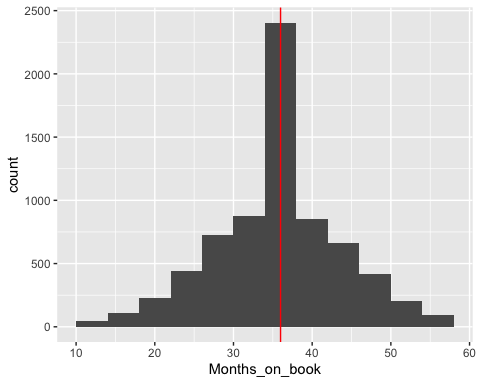
# Plot of education level  
ggplot(Bank, aes(Education\_Level)) + geom\_bar()



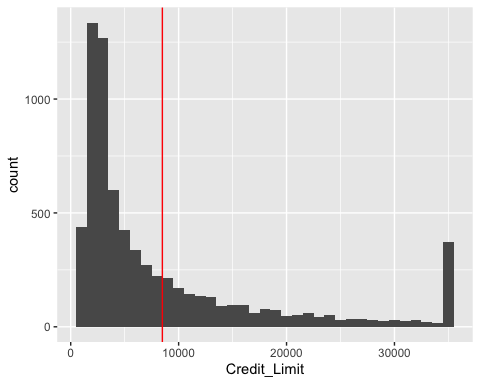
ggplot(Bank, aes(Income\_Category)) + geom\_bar()



# Histogram of months on book  
ggplot(Bank, aes(Months\_on\_book)) + geom\_histogram(binwidth = 4) + geom\_vline(aes(xintercept = mean(Months\_on\_book)), col = "red")



# Histogram of credit limit  
ggplot(Bank, aes(Credit\_Limit)) + geom\_histogram(binwidth = 1000) + geom\_vline(aes(xintercept = mean(Credit\_Limit)), col = "red")



# Histogram of average utilization ratio  
ggplot(Bank, aes(Avg\_Utilization\_Ratio)) + geom\_histogram(binwidth = 0.05) + geom\_vline(aes(xintercept = mean(Avg\_Utilization\_Ratio)), col = "red")

