Fitted Regression Model Lines

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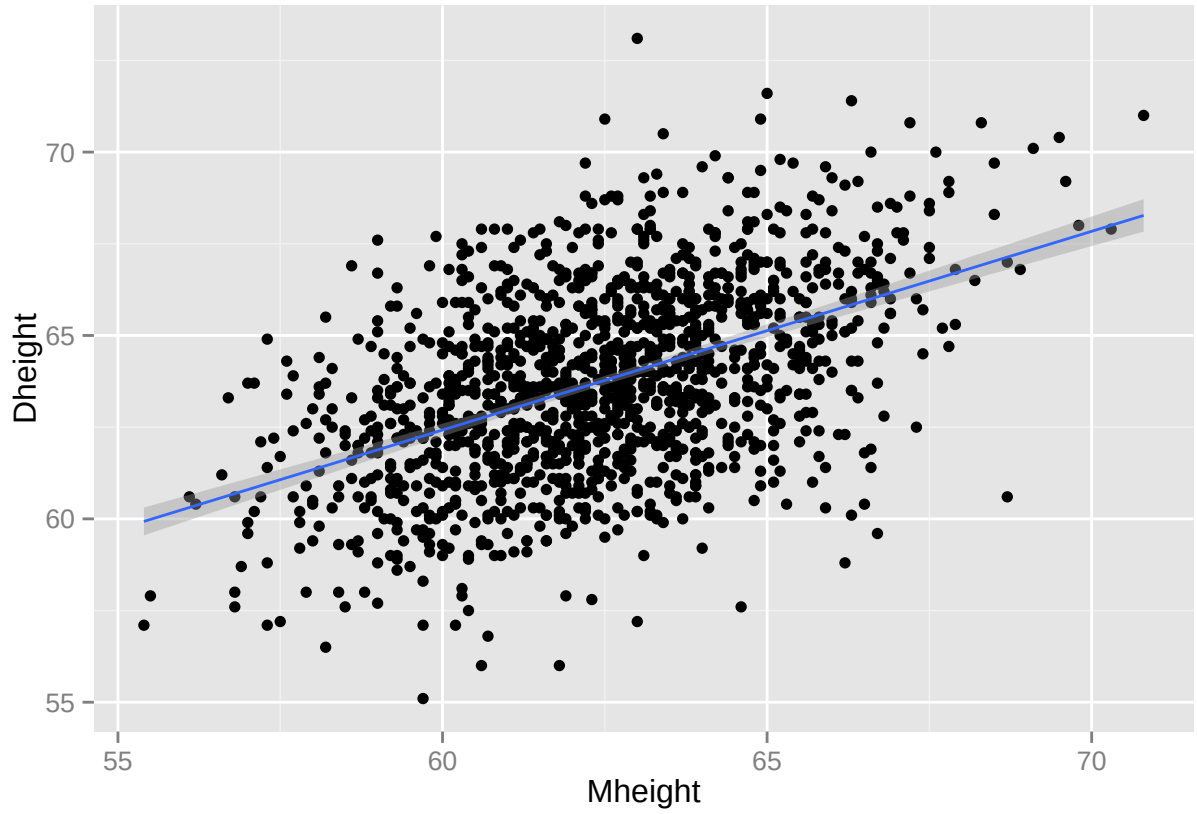
```
library(ggplot2)

#install.packages("alr3")
library(alr3)

#load Pearson-Lee data: collection of data, heights in inches of mothers
#and their daughters, on over 1100 families in England in the period 1893
#to 1898
ht <- heights
head(ht)
```

```
##   Mheight Dheight
## 1    59.7    55.1
## 2    58.2    56.5
## 3    60.6    56.0
## 4    60.7    56.8
## 5    61.8    56.0
## 6    55.5    57.9
```

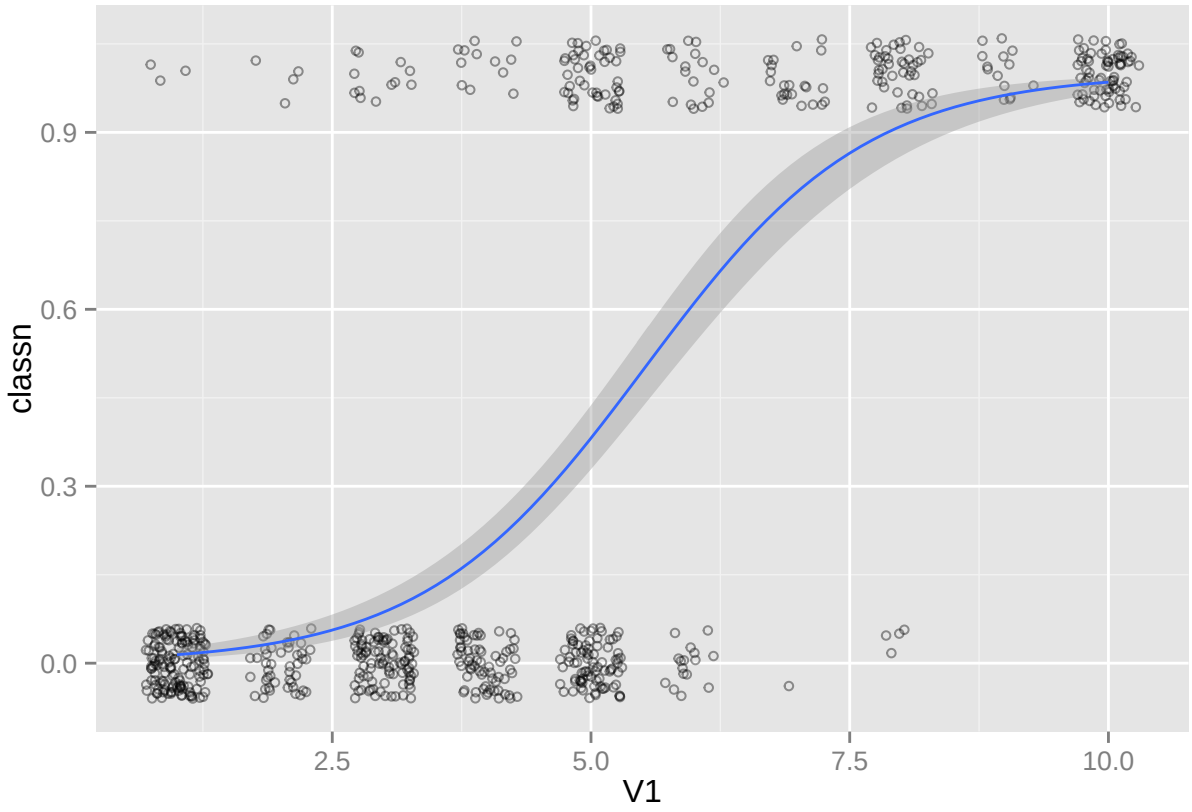
```
#adding fitted regression model lines
#base plot with 95% confidence region
sp <- ggplot(ht, aes(x=Mheight, y=Dheight))
sp + geom_point() + stat_smooth(method=lm, level=0.95)
```




```
#fit logistic regression line
library(MASS) #for data
b <- biopsy
#b

b$classn[b$class=="benign"] <- 0
b$classn[b$class=="malignant"] <- 1
#b

#use smoothing method glm with binomial formula
ggplot(b, aes(x=V1, y=classn)) +
  geom_point(position=position_jitter(width=0.3, height=0.06), alpha=0.4,
             shape=21, size=1.5) +
  stat_smooth(method=glm, family=binomial)
```


classn
0.9
0.6
0.3
0.0
2.5
5.0
7.5
10.0
V1