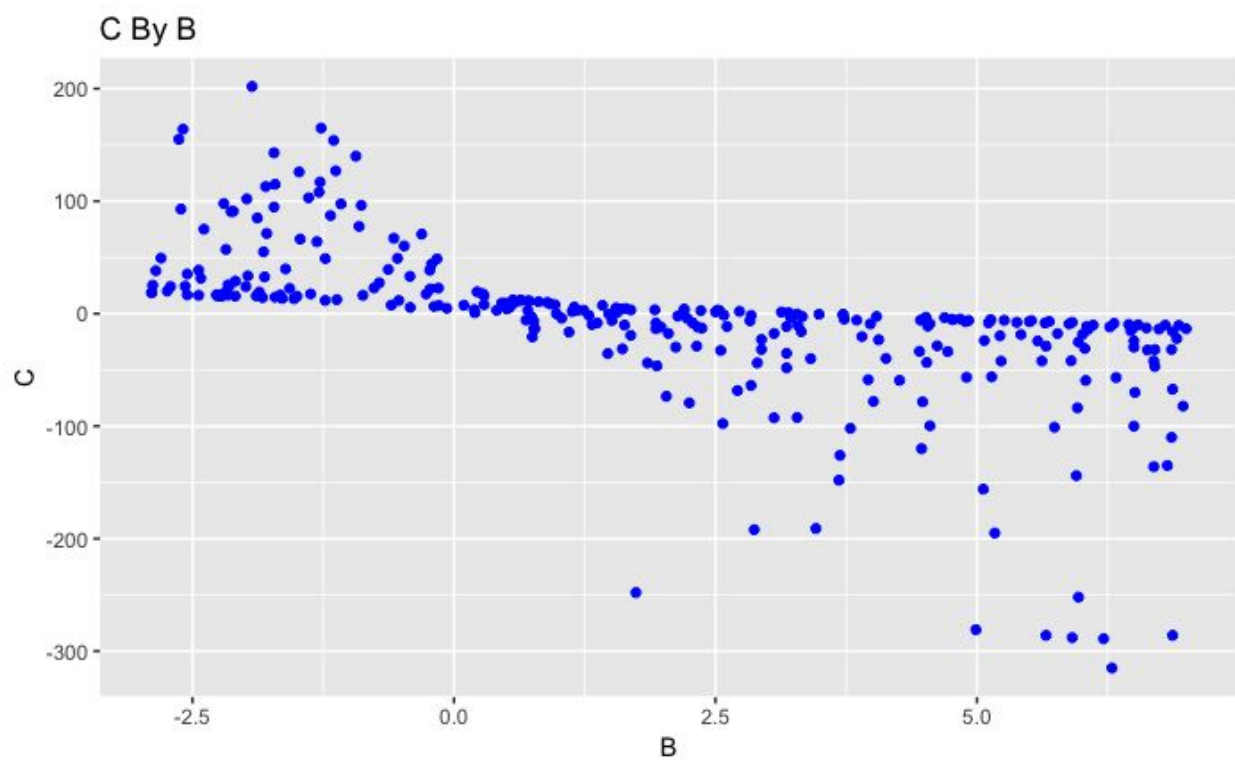**Original Plots (after removing outliers)**

C By A

C By B
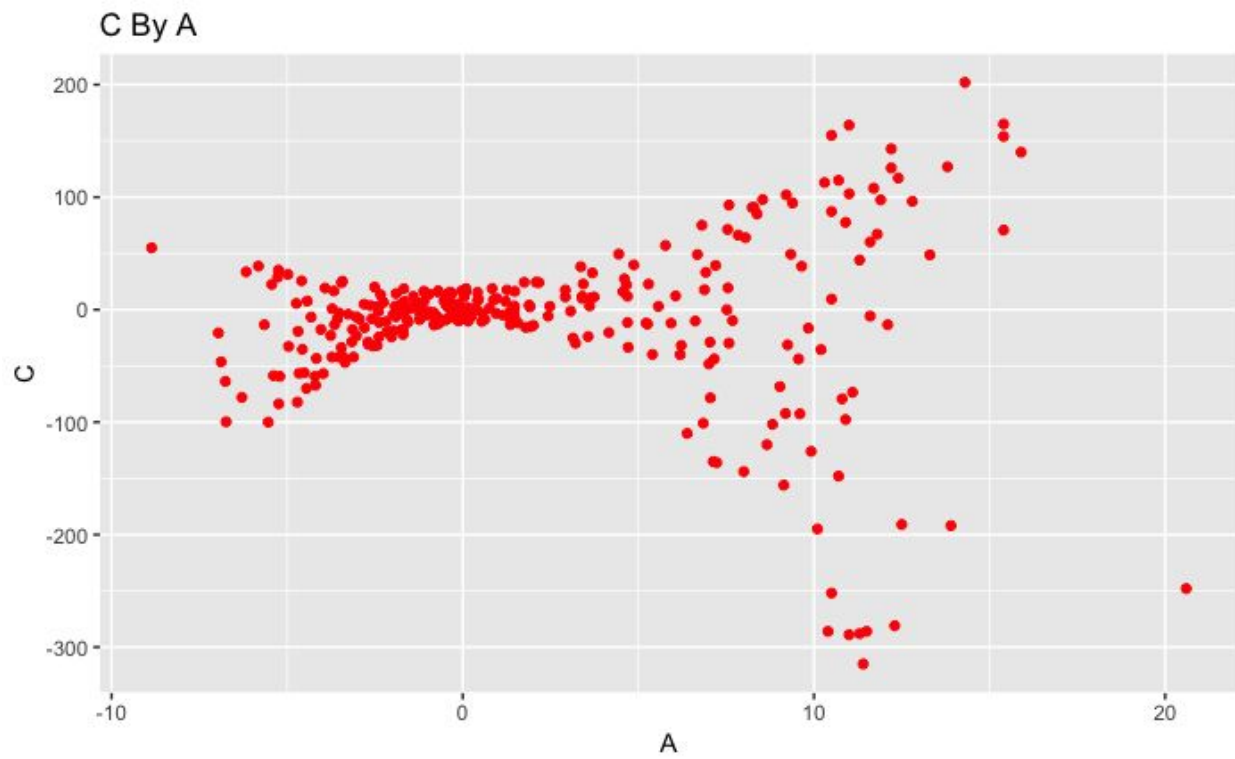
Linear Regression - Model (C ~ A + B)

Polynomial Regression - Model (C ~ A5 + A4 + A3 + A2 + A + B)
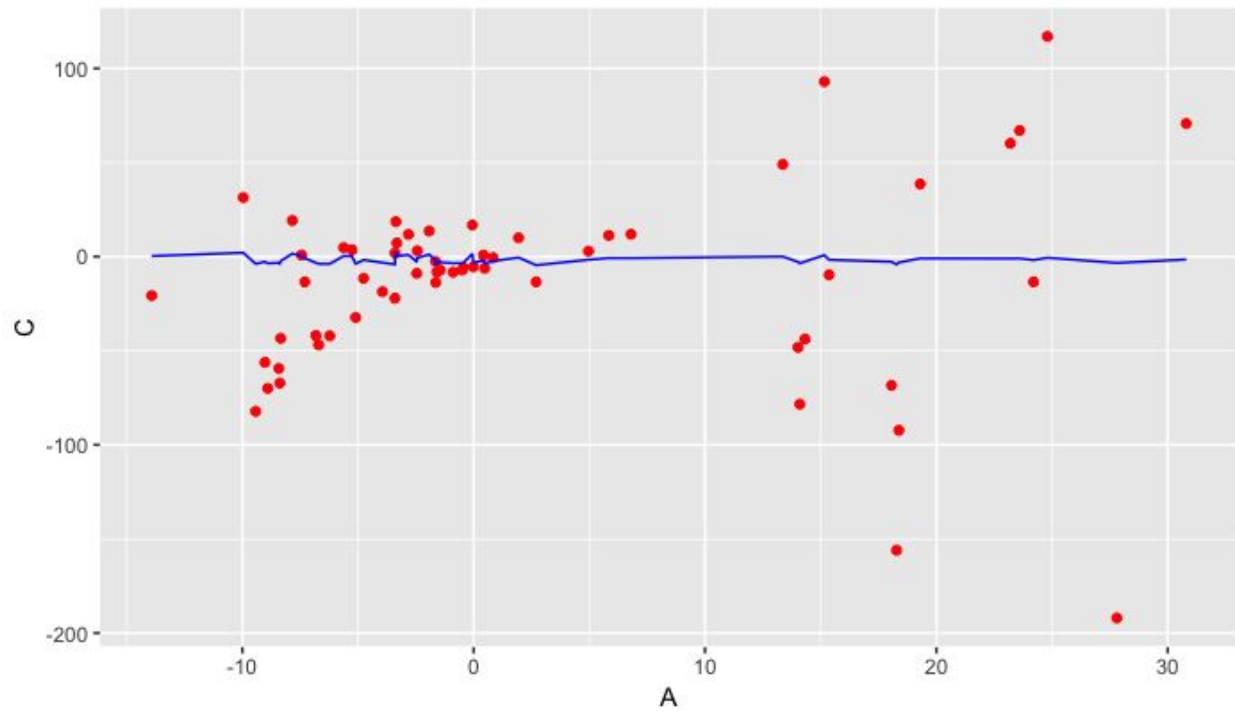
Polynomial Regression - Model (C ~ A5 + A4 + A3 + A2 + A + B)
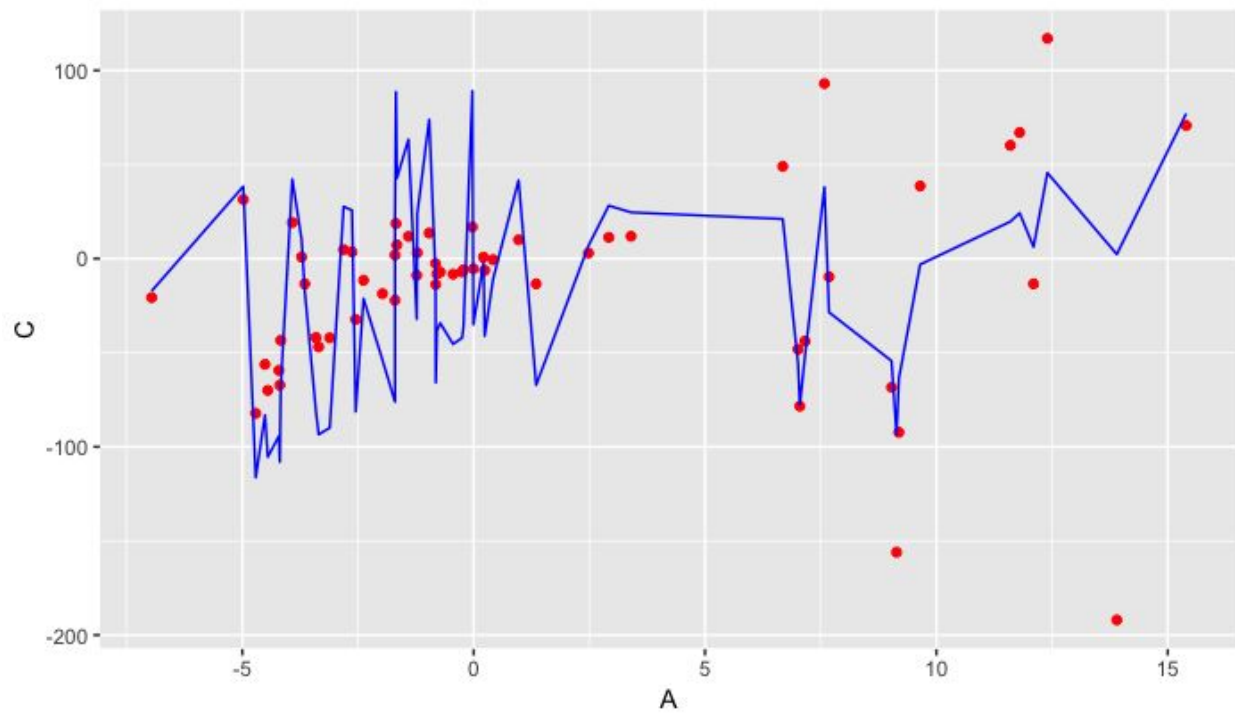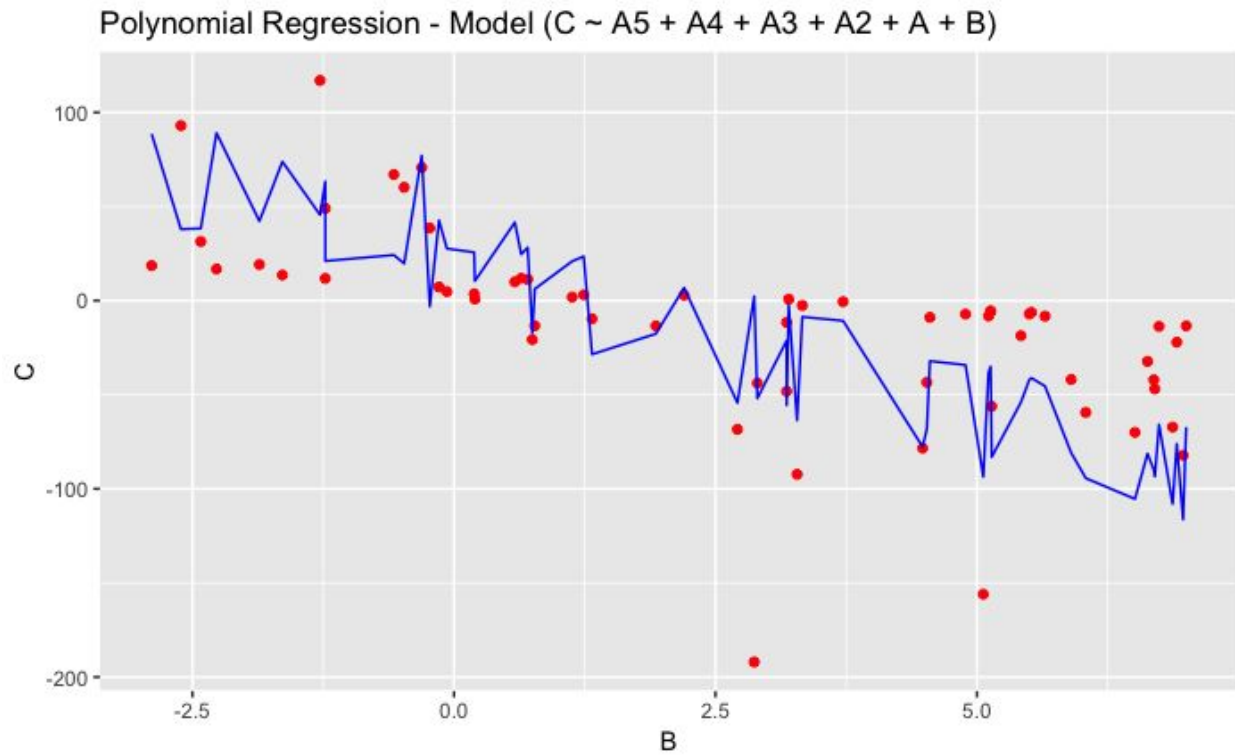
FINAL MODEL

Regression Results

```
=============================================
                    Dependent variable:
                  ---------------------------
                              C
                   model8 (C ~ A + B + AB)
---------------------------------------------
A                          0.19***
                           (0.04)


B                          -0.45***
                           (0.03)


AB                         -0.66***
                           (0.04)


Constant                   -0.00
                           (0.03)
```

```
-------------------------------------------------
Observations                    238
R2                              0.77
Adjusted R2                     0.77
Residual Std. Error      0.48 (df = 234)
F Statistic         260.21*** (df = 3; 234)
=================================================
Note:              *p<0.1; **p<0.05; ***p<0.01
```


Polynomial Regression - Model (C ~ A + B + AB) - Prediction with Test Set