**10**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.75823 -0.21201 -0.00252 0.22530 0.61158

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 0.98332 0.10072 9.763 < 2e-16 \*\*\*

Feature\_1 0.00459 0.05565 0.082 0.93430

Feature\_2 -0.02516 0.06566 -0.383 0.70172

Feature\_3 -0.76761 0.07067 -10.862 < 2e-16 \*\*\*

Feature\_4 -0.32533 0.06942 -4.686 3.72e-06 \*\*\*

Feature\_5 0.03273 0.07022 0.466 0.64133

Feature\_6 0.13439 0.06632 2.026 0.04333 \*

Feature\_7 -0.23901 0.08274 -2.889 0.00406 \*\*

Feature\_8 -0.06547 0.07301 -0.897 0.37037

Feature\_9 0.13734 0.07335 1.872 0.06184 .

Feature\_10 0.01472 0.07297 0.202 0.84021

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2771 on 437 degrees of freedom

Multiple R-squared: 0.2644, Adjusted R-squared: 0.2476

1. statistic: 15.71 on 10 and 437 DF, p-value: < 2.2e-16

**20**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.65624 -0.19789 -0.00987 0.20787 0.65164

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.0883189 0.1499279 7.259 1.86e-12 \*\*\*

Feature\_1 0.0045900 0.0544786 0.084 0.93289

Feature\_2 -0.0251639 0.0642748 -0.392 0.69562

Feature\_3 -0.7676143 0.0691832 -11.095 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0679581 -4.787 2.34e-06 \*\*\*

Feature\_5 0.0327330 0.0687390 0.476 0.63418

Feature\_6 0.1343904 0.0649241 2.070 0.03906 \*

Feature\_7 -0.2389985 0.0809995 -2.951 0.00335 \*\*

Feature\_8 -0.0653197 0.0714731 -0.914 0.36128

Feature\_9 0.1374211 0.0718498 1.913 0.05647 .

Feature\_10 0.0145973 0.0714371 0.204 0.83819

Feature\_11 -0.0007844 0.0696927 -0.011 0.99103

Feature\_12 -0.2737248 0.0887580 -3.084 0.00218 \*\*

Feature\_13 0.1656477 0.0863387 1.919 0.05570 .

Feature\_14 -0.0445883 0.0817878 -0.545 0.58592

Feature\_15 -0.0527829 0.0718380 -0.735 0.46290

Feature\_16 0.0028934 0.0806623 0.036 0.97140

Feature\_17 -0.0967238 0.0834846 -1.159 0.24727

Feature\_18 0.1978174 0.0797953 2.479 0.01356 \*

Feature\_19 0.0190268 0.0789472 0.241 0.80967

Feature\_20 -0.2204609 0.0808217 -2.728 0.00664 \*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2713 on 427 degrees of freedom

Multiple R-squared: 0.3112, Adjusted R-squared: 0.279

F-statistic: 9.648 on 20 and 427 DF, p-value: < 2.2e-16

**40**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.60077 -0.19183 0.00172 0.19038 0.67412

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 0.9886616 0.2129450 4.643 4.64e-06 \*\*\*

Feature\_1 0.0045900 0.0513132 0.089 0.928767

Feature\_2 -0.0251639 0.0605402 -0.416 0.677881

Feature\_3 -0.7676142 0.0651635 -11.780 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0640095 -5.082 5.69e-07 \*\*\*

Feature\_5 0.0327330 0.0647450 0.506 0.613434

Feature\_6 0.1343901 0.0611517 2.198 0.028537 \*

Feature\_7 -0.2389986 0.0762932 -3.133 0.001858 \*\*

Feature\_8 -0.0653212 0.0673202 -0.970 0.332471

Feature\_9 0.1374186 0.0676753 2.031 0.042950 \*

Feature\_10 0.0145955 0.0672866 0.217 0.828383

Feature\_11 -0.0008078 0.0656482 -0.012 0.990188

Feature\_12 -0.2737434 0.0836023 -3.274 0.001150 \*\*

Feature\_13 0.1655585 0.0813105 2.036 0.042385 \*

Feature\_14 -0.0443781 0.0770459 -0.576 0.564936

Feature\_15 -0.0527251 0.0676770 -0.779 0.436392

Feature\_16 0.0020556 0.0760527 0.027 0.978450

Feature\_17 -0.0962735 0.0787237 -1.223 0.222064

Feature\_18 0.1978404 0.0751742 2.632 0.008817 \*\*

Feature\_19 0.0191639 0.0745894 0.257 0.797367

Feature\_20 -0.2202763 0.0749488 -2.939 0.003480 \*\*

Feature\_21 -0.1925665 0.1036075 -1.859 0.063803 .

Feature\_22 -0.3325526 0.0934764 -3.558 0.000418 \*\*\*

Feature\_23 0.0378057 0.0668805 0.565 0.572200

Feature\_24 0.1119088 0.0724150 1.545 0.123031

Feature\_25 -0.1504539 0.0799932 -1.881 0.060708 .

Feature\_26 0.1609441 0.0762511 2.111 0.035407 \*

Feature\_27 0.0523898 0.0621224 0.843 0.399539

Feature\_28 0.2997483 0.0756830 3.961 8.83e-05 \*\*\*

Feature\_29 -0.2697058 0.0850497 -3.171 0.001633 \*\*

Feature\_30 0.0999943 0.0940058 1.064 0.288094

Feature\_31 -0.0901671 0.0745562 -1.209 0.227217

Feature\_32 -0.0031842 0.1002058 -0.032 0.974666

Feature\_33 0.2254066 0.0802091 2.810 0.005189 \*\*

Feature\_34 -0.0611113 0.0774970 -0.789 0.430826

Feature\_35 0.0423456 0.0743820 0.569 0.569467

Feature\_36 0.1895148 0.0751643 2.521 0.012072 \*

Feature\_37 0.1274663 0.0823421 1.548 0.122397

Feature\_38 -0.0390144 0.0763344 -0.511 0.609559

Feature\_39 -0.0218567 0.0834304 -0.262 0.793473

Feature\_40 -0.0443754 0.0818063 -0.542 0.587809

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2555 on 407 degrees of freedom

Multiple R-squared: 0.4176, Adjusted R-squared: 0.3603

F-statistic: 7.295 on 40 and 407 DF, p-value: < 2.2e-16

**50**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.56054 -0.17149 -0.00806 0.17766 0.57929

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.0433524 0.2371080 4.400 1.39e-05 \*\*\*

Feature\_1 0.0045900 0.0510035 0.090 0.92834

Feature\_2 -0.0251639 0.0601748 -0.418 0.67604

Feature\_3 -0.7676143 0.0647702 -11.851 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0636232 -5.113 4.93e-07 \*\*\*

Feature\_5 0.0327331 0.0643543 0.509 0.61129

Feature\_6 0.1343907 0.0607826 2.211 0.02760 \*

Feature\_7 -0.2389997 0.0758329 -3.152 0.00175 \*\*

Feature\_8 -0.0653213 0.0669131 -0.976 0.32955

Feature\_9 0.1374204 0.0672669 2.043 0.04172 \*

Feature\_10 0.0145916 0.0668805 0.218 0.82741

Feature\_11 -0.0008015 0.0652545 -0.012 0.99021

Feature\_12 -0.2737471 0.0830985 -3.294 0.00108 \*\*

Feature\_13 0.1655565 0.0808189 2.048 0.04117 \*

Feature\_14 -0.0443609 0.0765800 -0.579 0.56273

Feature\_15 -0.0527117 0.0672546 -0.784 0.43365

Feature\_16 0.0020909 0.0756034 0.028 0.97795

Feature\_17 -0.0962141 0.0782535 -1.230 0.21961

Feature\_18 0.1977354 0.0747035 2.647 0.00845 \*\*

Feature\_19 0.0191355 0.0741468 0.258 0.79648

Feature\_20 -0.2203197 0.0744400 -2.960 0.00326 \*\*

Feature\_21 -0.1928920 0.1030156 -1.872 0.06188 .

Feature\_22 -0.3325975 0.0929733 -3.577 0.00039 \*\*\*

Feature\_23 0.0378530 0.0664809 0.569 0.56942

Feature\_24 0.1111144 0.0719198 1.545 0.12315

Feature\_25 -0.1505924 0.0795182 -1.894 0.05898 .

Feature\_26 0.1603902 0.0760628 2.109 0.03560 \*

Feature\_27 0.0521977 0.0617215 0.846 0.39823

Feature\_28 0.2961634 0.0751965 3.939 9.68e-05 \*\*\*

Feature\_29 -0.2698920 0.0841167 -3.209 0.00144 \*\*

Feature\_30 0.1026620 0.0938180 1.094 0.27450

Feature\_31 -0.0875883 0.0739874 -1.184 0.23719

Feature\_32 0.0208875 0.1004849 0.208 0.83544

Feature\_33 0.2205264 0.0784976 2.809 0.00521 \*\*

Feature\_34 -0.0626481 0.0758257 -0.826 0.40918

Feature\_35 0.0324809 0.0744918 0.436 0.66305

Feature\_36 0.1895805 0.0736825 2.573 0.01045 \*

Feature\_37 0.1288779 0.0807624 1.596 0.11134

Feature\_38 -0.0387565 0.0764802 -0.507 0.61261

Feature\_39 -0.0209214 0.0791994 -0.264 0.79179

Feature\_40 -0.1069383 0.0797787 -1.340 0.18087

Feature\_41 0.1257030 0.0643513 1.953 0.05148 .

Feature\_42 -0.0723741 0.0668469 -1.083 0.27961

Feature\_43 0.0649435 0.0796942 0.815 0.41561

Feature\_44 0.0130028 0.0730850 0.178 0.85888

Feature\_45 -0.1117638 0.0690231 -1.619 0.10619

Feature\_46 -0.0191051 0.0777682 -0.246 0.80607

Feature\_47 -0.1511630 0.0959066 -1.576 0.11579

Feature\_48 -0.0509658 0.0740641 -0.688 0.49177

Feature\_49 0.1161897 0.0765970 1.517 0.13009

Feature\_50 -0.0153975 0.0775334 -0.199 0.84268

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.254 on 397 degrees of freedom

Multiple R-squared: 0.4387, Adjusted R-squared: 0.368

F-statistic: 6.206 on 50 and 397 DF, p-value: < 2.2e-16

**60**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.59274 -0.17289 0.00596 0.17444 0.60571

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.0013143 0.2646894 3.783 0.000179 \*\*\*

Feature\_1 0.0045900 0.0506720 0.091 0.927870

Feature\_2 -0.0251639 0.0597837 -0.421 0.674050

Feature\_3 -0.7676142 0.0643492 -11.929 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0632097 -5.147 4.22e-07 \*\*\*

Feature\_5 0.0327331 0.0639360 0.512 0.608967

Feature\_6 0.1343900 0.0603876 2.225 0.026626 \*

Feature\_7 -0.2389987 0.0753399 -3.172 0.001633 \*\*

Feature\_8 -0.0653215 0.0664792 -0.983 0.326425

Feature\_9 0.1374201 0.0668300 2.056 0.040427 \*

Feature\_10 0.0145945 0.0664460 0.220 0.826264

Feature\_11 -0.0008086 0.0648277 -0.012 0.990054

Feature\_12 -0.2737424 0.0825568 -3.316 0.001000 \*\*

Feature\_13 0.1655537 0.0802961 2.062 0.039895 \*

Feature\_14 -0.0443697 0.0760821 -0.583 0.560111

Feature\_15 -0.0527276 0.0668322 -0.789 0.430621

Feature\_16 0.0020665 0.0750997 0.028 0.978061

Feature\_17 -0.0962428 0.0777398 -1.238 0.216462

Feature\_18 0.1978369 0.0742302 2.665 0.008017 \*\*

Feature\_19 0.0191678 0.0736654 0.260 0.794848

Feature\_20 -0.2202524 0.0740137 -2.976 0.003105 \*\*

Feature\_21 -0.1925839 0.1023009 -1.883 0.060515 .

Feature\_22 -0.3326323 0.0923144 -3.603 0.000355 \*\*\*

Feature\_23 0.0377749 0.0660492 0.572 0.567707

Feature\_24 0.1118119 0.0714855 1.564 0.118607

Feature\_25 -0.1505513 0.0789578 -1.907 0.057296 .

Feature\_26 0.1609511 0.0753085 2.137 0.033206 \*

Feature\_27 0.0524843 0.0613942 0.855 0.393150

Feature\_28 0.2994382 0.0747184 4.008 7.36e-05 \*\*\*

Feature\_29 -0.2704988 0.0841037 -3.216 0.001408 \*\*

Feature\_30 0.0998509 0.0928427 1.075 0.282828

Feature\_31 -0.0910434 0.0735375 -1.238 0.216446

Feature\_32 -0.0059979 0.0987544 -0.061 0.951601

Feature\_33 0.2301863 0.0806050 2.856 0.004525 \*\*

Feature\_34 -0.0651556 0.0766738 -0.850 0.395975

Feature\_35 0.0443586 0.0741811 0.598 0.550205

Feature\_36 0.1874847 0.0731324 2.564 0.010735 \*

Feature\_37 0.1278815 0.0820857 1.558 0.120074

Feature\_38 -0.0428617 0.0753673 -0.569 0.569887

Feature\_39 -0.0228435 0.0807824 -0.283 0.777498

Feature\_40 -0.0575426 0.0785351 -0.733 0.464186

Feature\_41 0.1773835 0.0717534 2.472 0.013860 \*

Feature\_42 -0.0635162 0.0740201 -0.858 0.391372

Feature\_43 0.0400123 0.0779064 0.514 0.607829

Feature\_44 -0.0086833 0.0749771 -0.116 0.907861

Feature\_45 -0.1122396 0.0715532 -1.569 0.117554

Feature\_46 -0.0341066 0.0683398 -0.499 0.618010

Feature\_47 -0.1441154 0.0812282 -1.774 0.076815 .

Feature\_48 -0.0321740 0.0688641 -0.467 0.640612

Feature\_49 0.0560956 0.0782918 0.716 0.474119

Feature\_50 -0.0621559 0.0696131 -0.893 0.372478

Feature\_51 0.0764931 0.0796437 0.960 0.337433

Feature\_52 -0.1056023 0.0783314 -1.348 0.178399

Feature\_53 -0.0444047 0.0889681 -0.499 0.617987

Feature\_54 -0.0928261 0.0660134 -1.406 0.160476

Feature\_55 0.1376387 0.0800920 1.719 0.086504 .

Feature\_56 -0.0064617 0.1002798 -0.064 0.948656

Feature\_57 0.0403086 0.0797574 0.505 0.613573

Feature\_58 0.1245720 0.0758886 1.642 0.101504

Feature\_59 -0.1014639 0.0777856 -1.304 0.192871

Feature\_60 0.1190832 0.0719161 1.656 0.098560 .

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2523 on 387 degrees of freedom

Multiple R-squared: 0.4599, Adjusted R-squared: 0.3762

F-statistic: 5.493 on 60 and 387 DF, p-value: < 2.2e-16

**80**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60 + Feature\_61 + Feature\_62 + Feature\_63 +

Feature\_64 + Feature\_65 + Feature\_66 + Feature\_67 + Feature\_68 +

Feature\_69 + Feature\_70 + Feature\_71 + Feature\_72 + Feature\_73 +

Feature\_74 + Feature\_75 + Feature\_76 + Feature\_77 + Feature\_78 +

Feature\_79 + Feature\_80, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.67631 -0.16974 0.01371 0.16197 0.56142

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.0274151 0.3088779 3.326 0.000969 \*\*\*

Feature\_1 0.0045900 0.0508890 0.090 0.928180

Feature\_2 -0.0251639 0.0600397 -0.419 0.675373

Feature\_3 -0.7676142 0.0646248 -11.878 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0634804 -5.125 4.83e-07 \*\*\*

Feature\_5 0.0327330 0.0642098 0.510 0.610510

Feature\_6 0.1343900 0.0606462 2.216 0.027307 \*

Feature\_7 -0.2389987 0.0756625 -3.159 0.001716 \*\*

Feature\_8 -0.0653210 0.0667637 -0.978 0.328525

Feature\_9 0.1374185 0.0671159 2.047 0.041322 \*

Feature\_10 0.0145956 0.0667304 0.219 0.826986

Feature\_11 -0.0008078 0.0651055 -0.012 0.990107

Feature\_12 -0.2737416 0.0829112 -3.302 0.001056 \*\*

Feature\_13 0.1655590 0.0806382 2.053 0.040771 \*

Feature\_14 -0.0443774 0.0764087 -0.581 0.561739

Feature\_15 -0.0527276 0.0671166 -0.786 0.432602

Feature\_16 0.0020596 0.0754235 0.027 0.978229

Feature\_17 -0.0962741 0.0780724 -1.233 0.218313

Feature\_18 0.1978393 0.0745516 2.654 0.008307 \*\*

Feature\_19 0.0191680 0.0739727 0.259 0.795686

Feature\_20 -0.2202842 0.0743295 -2.964 0.003239 \*\*

Feature\_21 -0.1925636 0.1027532 -1.874 0.061719 .

Feature\_22 -0.3325953 0.0927088 -3.588 0.000379 \*\*\*

Feature\_23 0.0378508 0.0663265 0.571 0.568570

Feature\_24 0.1119202 0.0718051 1.559 0.119937

Feature\_25 -0.1504690 0.0793146 -1.897 0.058597 .

Feature\_26 0.1608732 0.0756188 2.127 0.034051 \*

Feature\_27 0.0525579 0.0616168 0.853 0.394227

Feature\_28 0.2994733 0.0750761 3.989 8.01e-05 \*\*\*

Feature\_29 -0.2698480 0.0843614 -3.199 0.001500 \*\*

Feature\_30 0.1005579 0.0932912 1.078 0.281790

Feature\_31 -0.0905474 0.0738909 -1.225 0.221203

Feature\_32 -0.0077357 0.0991660 -0.078 0.937864

Feature\_33 0.2289742 0.0806990 2.837 0.004801 \*\*

Feature\_34 -0.0634662 0.0769421 -0.825 0.409989

Feature\_35 0.0429585 0.0743184 0.578 0.563596

Feature\_36 0.1877125 0.0736392 2.549 0.011207 \*

Feature\_37 0.1281131 0.0819860 1.563 0.119004

Feature\_38 -0.0417854 0.0758983 -0.551 0.582281

Feature\_39 -0.0209747 0.0806454 -0.260 0.794944

Feature\_40 -0.0514791 0.0787005 -0.654 0.513448

Feature\_41 0.1768177 0.0720003 2.456 0.014520 \*

Feature\_42 -0.0625917 0.0744161 -0.841 0.400837

Feature\_43 -0.0469694 0.0785578 -0.598 0.550278

Feature\_44 0.0094255 0.0743720 0.127 0.899220

Feature\_45 -0.1119443 0.0713079 -1.570 0.117306

Feature\_46 -0.0361212 0.0709799 -0.509 0.611133

Feature\_47 -0.1424234 0.0796878 -1.787 0.074720 .

Feature\_48 -0.0252389 0.0661296 -0.382 0.702936

Feature\_49 0.0564443 0.0790744 0.714 0.475797

Feature\_50 0.0930042 0.0754213 1.233 0.218317

Feature\_51 0.0429272 0.0714957 0.600 0.548599

Feature\_52 -0.0717156 0.0836968 -0.857 0.392087

Feature\_53 -0.0251210 0.0931186 -0.270 0.787486

Feature\_54 -0.0754145 0.0643580 -1.172 0.242039

Feature\_55 -0.0388202 0.0826184 -0.470 0.638725

Feature\_56 -0.1430888 0.0864409 -1.655 0.098711 .

Feature\_57 -0.0199697 0.0840065 -0.238 0.812234

Feature\_58 -0.0789073 0.0820417 -0.962 0.336786

Feature\_59 -0.1688292 0.0768275 -2.198 0.028608 \*

Feature\_60 -0.0942802 0.0741931 -1.271 0.204626

Feature\_61 0.0777539 0.0668840 1.163 0.245780

Feature\_62 0.0396712 0.0660501 0.601 0.548462

Feature\_63 0.0306112 0.0711695 0.430 0.667363

Feature\_64 0.0891269 0.0847039 1.052 0.293392

Feature\_65 -0.0166422 0.0753185 -0.221 0.825248

Feature\_66 -0.0441693 0.0828546 -0.533 0.594292

Feature\_67 0.0688257 0.0747074 0.921 0.357515

Feature\_68 -0.0465536 0.0727614 -0.640 0.522694

Feature\_69 0.1596785 0.0897580 1.779 0.076069 .

Feature\_70 -0.0320311 0.0800247 -0.400 0.689194

Feature\_71 0.1187207 0.0916072 1.296 0.195798

Feature\_72 -0.0377731 0.0750465 -0.503 0.615035

Feature\_73 -0.0218714 0.0867780 -0.252 0.801152

Feature\_74 -0.0501058 0.0719031 -0.697 0.486337

Feature\_75 -0.0367020 0.0813422 -0.451 0.652109

Feature\_76 0.1048339 0.0866220 1.210 0.226964

Feature\_77 0.0706401 0.0754088 0.937 0.349497

Feature\_78 -0.0881563 0.0740116 -1.191 0.234378

Feature\_79 0.0935302 0.0734057 1.274 0.203415

Feature\_80 0.1239619 0.0799378 1.551 0.121829

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2534 on 367 degrees of freedom

Multiple R-squared: 0.4835, Adjusted R-squared: 0.3709

F-statistic: 4.294 on 80 and 367 DF, p-value: < 2.2e-16

**100**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60 + Feature\_61 + Feature\_62 + Feature\_63 +

Feature\_64 + Feature\_65 + Feature\_66 + Feature\_67 + Feature\_68 +

Feature\_69 + Feature\_70 + Feature\_71 + Feature\_72 + Feature\_73 +

Feature\_74 + Feature\_75 + Feature\_76 + Feature\_77 + Feature\_78 +

Feature\_79 + Feature\_80 + Feature\_81 + Feature\_82 + Feature\_83 +

Feature\_84 + Feature\_85 + Feature\_86 + Feature\_87 + Feature\_88 +

Feature\_89 + Feature\_90 + Feature\_91 + Feature\_92 + Feature\_93 +

Feature\_94 + Feature\_95 + Feature\_96 + Feature\_97 + Feature\_98 +

Feature\_99 + Feature\_100, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.66581 -0.16238 -0.00086 0.16943 0.51784

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.248447 0.343803 3.631 0.000325 \*\*\*

Feature\_1 0.004590 0.050347 0.091 0.927412

Feature\_2 -0.025164 0.059401 -0.424 0.672098

Feature\_3 -0.767614 0.063937 -12.006 < 2e-16 \*\*\*

Feature\_4 -0.325326 0.062805 -5.180 3.77e-07 \*\*\*

Feature\_5 0.032733 0.063526 0.515 0.606695

Feature\_6 0.134390 0.060001 2.240 0.025736 \*

Feature\_7 -0.238999 0.074857 -3.193 0.001538 \*\*

Feature\_8 -0.065321 0.066053 -0.989 0.323391

Feature\_9 0.137419 0.066402 2.070 0.039238 \*

Feature\_10 0.014596 0.066020 0.221 0.825163

Feature\_11 -0.000808 0.064412 -0.013 0.989998

Feature\_12 -0.273743 0.082029 -3.337 0.000938 \*\*\*

Feature\_13 0.165558 0.079780 2.075 0.038706 \*

Feature\_14 -0.044378 0.075596 -0.587 0.557554

Feature\_15 -0.052725 0.066403 -0.794 0.427732

Feature\_16 0.002057 0.074621 0.028 0.978027

Feature\_17 -0.096271 0.077242 -1.246 0.213471

Feature\_18 0.197836 0.073758 2.682 0.007663 \*\*

Feature\_19 0.019164 0.073185 0.262 0.793584

Feature\_20 -0.220274 0.073537 -2.995 0.002938 \*\*

Feature\_21 -0.192566 0.101656 -1.894 0.059019 .

Feature\_22 -0.332552 0.091719 -3.626 0.000331 \*\*\*

Feature\_23 0.037793 0.065619 0.576 0.565028

Feature\_24 0.111939 0.071042 1.576 0.116014

Feature\_25 -0.150420 0.078482 -1.917 0.056106 .

Feature\_26 0.160875 0.074813 2.150 0.032217 \*

Feature\_27 0.052568 0.060975 0.862 0.389217

Feature\_28 0.299576 0.074264 4.034 6.75e-05 \*\*\*

Feature\_29 -0.269591 0.083429 -3.231 0.001350 \*\*

Feature\_30 0.100457 0.092340 1.088 0.277392

Feature\_31 -0.090439 0.073101 -1.237 0.216853

Feature\_32 -0.007821 0.098081 -0.080 0.936492

Feature\_33 0.229004 0.079911 2.866 0.004414 \*\*

Feature\_34 -0.062936 0.076155 -0.826 0.409133

Feature\_35 0.043184 0.073506 0.587 0.557254

Feature\_36 0.187868 0.072817 2.580 0.010290 \*

Feature\_37 0.128035 0.081178 1.577 0.115658

Feature\_38 -0.042679 0.075251 -0.567 0.570970

Feature\_39 -0.021456 0.079749 -0.269 0.788060

Feature\_40 -0.052017 0.077928 -0.667 0.504898

Feature\_41 0.177306 0.071295 2.487 0.013355 \*

Feature\_42 -0.063575 0.073520 -0.865 0.387786

Feature\_43 -0.047155 0.077402 -0.609 0.542777

Feature\_44 0.009843 0.073792 0.133 0.893967

Feature\_45 -0.111959 0.070606 -1.586 0.113718

Feature\_46 -0.031707 0.070507 -0.450 0.653211

Feature\_47 -0.145091 0.078814 -1.841 0.066486 .

Feature\_48 -0.023356 0.066045 -0.354 0.723828

Feature\_49 0.061069 0.078435 0.779 0.436748

Feature\_50 0.094994 0.073675 1.289 0.198127

Feature\_51 0.052286 0.071938 0.727 0.467826

Feature\_52 -0.068196 0.083378 -0.818 0.413968

Feature\_53 -0.022228 0.093042 -0.239 0.811327

Feature\_54 -0.084148 0.063913 -1.317 0.188838

Feature\_55 -0.041161 0.080975 -0.508 0.611548

Feature\_56 -0.130381 0.085198 -1.530 0.126848

Feature\_57 -0.005855 0.087841 -0.067 0.946895

Feature\_58 -0.072802 0.079241 -0.919 0.358866

Feature\_59 -0.173157 0.077272 -2.241 0.025666 \*

Feature\_60 -0.089609 0.071469 -1.254 0.210755

Feature\_61 -0.084243 0.066235 -1.272 0.204261

Feature\_62 0.046450 0.064286 0.723 0.470445

Feature\_63 0.025404 0.082649 0.307 0.758747

Feature\_64 0.063064 0.079620 0.792 0.428867

Feature\_65 -0.035803 0.076162 -0.470 0.638591

Feature\_66 -0.037922 0.075284 -0.504 0.614777

Feature\_67 0.072799 0.064869 1.122 0.262538

Feature\_68 -0.026506 0.075332 -0.352 0.725165

Feature\_69 -0.116110 0.086465 -1.343 0.180196

Feature\_70 -0.125112 0.073038 -1.713 0.087612 .

Feature\_71 -0.018263 0.076884 -0.238 0.812377

Feature\_72 0.122660 0.092684 1.323 0.186566

Feature\_73 -0.035328 0.085172 -0.415 0.678550

Feature\_74 0.042966 0.070828 0.607 0.544495

Feature\_75 -0.050335 0.087305 -0.577 0.564621

Feature\_76 0.001934 0.073412 0.026 0.978998

Feature\_77 -0.019652 0.090820 -0.216 0.828814

Feature\_78 -0.143723 0.074073 -1.940 0.053155 .

Feature\_79 0.110992 0.065231 1.702 0.089742 .

Feature\_80 0.111838 0.076966 1.453 0.147103

Feature\_81 0.020752 0.067341 0.308 0.758142

Feature\_82 -0.030032 0.085469 -0.351 0.725518

Feature\_83 0.063361 0.081271 0.780 0.436140

Feature\_84 0.048781 0.077731 0.628 0.530704

Feature\_85 0.130551 0.077296 1.689 0.092124 .

Feature\_86 0.110702 0.076609 1.445 0.149353

Feature\_87 -0.217875 0.072561 -3.003 0.002871 \*\*

Feature\_88 0.001437 0.077353 0.019 0.985185

Feature\_89 -0.184709 0.080467 -2.295 0.022303 \*

Feature\_90 0.059060 0.076867 0.768 0.442807

Feature\_91 0.053460 0.063155 0.846 0.397862

Feature\_92 0.024671 0.070128 0.352 0.725206

Feature\_93 -0.069517 0.080069 -0.868 0.385878

Feature\_94 0.098052 0.071796 1.366 0.172915

Feature\_95 -0.010046 0.068720 -0.146 0.883859

Feature\_96 0.028765 0.072180 0.399 0.690496

Feature\_97 0.062760 0.084083 0.746 0.455929

Feature\_98 -0.023044 0.083892 -0.275 0.783716

Feature\_99 0.039216 0.066172 0.593 0.553810

Feature\_100 0.001420 0.077232 0.018 0.985342

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2507 on 347 degrees of freedom

Multiple R-squared: 0.522, Adjusted R-squared: 0.3842

F-statistic: 3.789 on 100 and 347 DF, p-value: < 2.2e-16

**120**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60 + Feature\_61 + Feature\_62 + Feature\_63 +

Feature\_64 + Feature\_65 + Feature\_66 + Feature\_67 + Feature\_68 +

Feature\_69 + Feature\_70 + Feature\_71 + Feature\_72 + Feature\_73 +

Feature\_74 + Feature\_75 + Feature\_76 + Feature\_77 + Feature\_78 +

Feature\_79 + Feature\_80 + Feature\_81 + Feature\_82 + Feature\_83 +

Feature\_84 + Feature\_85 + Feature\_86 + Feature\_87 + Feature\_88 +

Feature\_89 + Feature\_90 + Feature\_91 + Feature\_92 + Feature\_93 +

Feature\_94 + Feature\_95 + Feature\_96 + Feature\_97 + Feature\_98 +

Feature\_99 + Feature\_100 + Feature\_101 + Feature\_102 + Feature\_103 +

Feature\_104 + Feature\_105 + Feature\_106 + Feature\_107 + Feature\_108 +

Feature\_109 + Feature\_110 + Feature\_111 + Feature\_112 + Feature\_113 +

Feature\_114 + Feature\_115 + Feature\_116 + Feature\_117 + Feature\_118 +

Feature\_119 + Feature\_120, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.66009 -0.14204 0.00214 0.15696 0.51606

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.2908232 0.3794172 3.402 0.000752 \*\*\*

Feature\_1 0.0045900 0.0503427 0.091 0.927409

Feature\_2 -0.0251639 0.0593952 -0.424 0.672086

Feature\_3 -0.7676142 0.0639310 -12.007 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0627989 -5.180 3.88e-07 \*\*\*

Feature\_5 0.0327330 0.0635204 0.515 0.606681

Feature\_6 0.1343901 0.0599951 2.240 0.025761 \*

Feature\_7 -0.2389986 0.0748502 -3.193 0.001545 \*\*

Feature\_8 -0.0653212 0.0660469 -0.989 0.323389

Feature\_9 0.1374186 0.0663953 2.070 0.039265 \*

Feature\_10 0.0145955 0.0660140 0.221 0.825155

Feature\_11 -0.0008078 0.0644065 -0.013 0.990000

Feature\_12 -0.2737431 0.0820211 -3.337 0.000943 \*\*\*

Feature\_13 0.1655582 0.0797726 2.075 0.038733 \*

Feature\_14 -0.0443781 0.0755887 -0.587 0.557542

Feature\_15 -0.0527247 0.0663964 -0.794 0.427719

Feature\_16 0.0020553 0.0746140 0.028 0.978041

Feature\_17 -0.0962717 0.0772344 -1.246 0.213478

Feature\_18 0.1978373 0.0737514 2.682 0.007679 \*\*

Feature\_19 0.0191659 0.0731782 0.262 0.793557

Feature\_20 -0.2202715 0.0735300 -2.996 0.002948 \*\*

Feature\_21 -0.1925678 0.1016477 -1.894 0.059046 .

Feature\_22 -0.3325453 0.0917093 -3.626 0.000334 \*\*\*

Feature\_23 0.0377997 0.0656138 0.576 0.564948

Feature\_24 0.1119452 0.0710351 1.576 0.116012

Feature\_25 -0.1504201 0.0784743 -1.917 0.056134 .

Feature\_26 0.1608745 0.0748076 2.151 0.032248 \*

Feature\_27 0.0525446 0.0609729 0.862 0.389446

Feature\_28 0.2995798 0.0742616 4.034 6.83e-05 \*\*\*

Feature\_29 -0.2696223 0.0834259 -3.232 0.001355 \*\*

Feature\_30 0.1004266 0.0923252 1.088 0.277507

Feature\_31 -0.0904675 0.0730946 -1.238 0.216724

Feature\_32 -0.0078333 0.0980806 -0.080 0.936393

Feature\_33 0.2289693 0.0798966 2.866 0.004429 \*\*

Feature\_34 -0.0629998 0.0761512 -0.827 0.408671

Feature\_35 0.0433348 0.0734765 0.590 0.555747

Feature\_36 0.1879873 0.0728349 2.581 0.010287 \*

Feature\_37 0.1281104 0.0811449 1.579 0.115352

Feature\_38 -0.0425916 0.0752521 -0.566 0.571792

Feature\_39 -0.0214477 0.0797642 -0.269 0.788185

Feature\_40 -0.0520040 0.0778822 -0.668 0.504780

Feature\_41 0.1773154 0.0713090 2.487 0.013396 \*

Feature\_42 -0.0634195 0.0735166 -0.863 0.388959

Feature\_43 -0.0470438 0.0774047 -0.608 0.543766

Feature\_44 0.0096647 0.0737530 0.131 0.895824

Feature\_45 -0.1121840 0.0705578 -1.590 0.112811

Feature\_46 -0.0317424 0.0705137 -0.450 0.652894

Feature\_47 -0.1460133 0.0788628 -1.851 0.065001 .

Feature\_48 -0.0231339 0.0661121 -0.350 0.726625

Feature\_49 0.0623637 0.0784097 0.795 0.426983

Feature\_50 0.0948674 0.0736523 1.288 0.198641

Feature\_51 0.0504872 0.0718327 0.703 0.482653

Feature\_52 -0.0691136 0.0836162 -0.827 0.409091

Feature\_53 -0.0233305 0.0931679 -0.250 0.802425

Feature\_54 -0.0831869 0.0636869 -1.306 0.192407

Feature\_55 -0.0416925 0.0807579 -0.516 0.606018

Feature\_56 -0.1344032 0.0851565 -1.578 0.115462

Feature\_57 -0.0076971 0.0872913 -0.088 0.929790

Feature\_58 -0.0696970 0.0790783 -0.881 0.378767

Feature\_59 -0.1754145 0.0769254 -2.280 0.023232 \*

Feature\_60 -0.0918475 0.0723656 -1.269 0.205267

Feature\_61 -0.0868242 0.0655994 -1.324 0.186576

Feature\_62 0.0496061 0.0638806 0.777 0.437989

Feature\_63 0.0250400 0.0820950 0.305 0.760550

Feature\_64 0.0627749 0.0795191 0.789 0.430431

Feature\_65 -0.0317251 0.0747192 -0.425 0.671414

Feature\_66 -0.0317546 0.0751045 -0.423 0.672715

Feature\_67 0.0780505 0.0633134 1.233 0.218549

Feature\_68 -0.0223474 0.0823913 -0.271 0.786382

Feature\_69 -0.1145167 0.0837584 -1.367 0.172494

Feature\_70 -0.1267200 0.0752443 -1.684 0.093114 .

Feature\_71 -0.0310767 0.0750567 -0.414 0.679114

Feature\_72 0.1315443 0.0955050 1.377 0.169344

Feature\_73 -0.0286923 0.0850870 -0.337 0.736174

Feature\_74 0.0471612 0.0730217 0.646 0.518829

Feature\_75 -0.0157631 0.0887882 -0.178 0.859197

Feature\_76 0.0133921 0.0762266 0.176 0.860647

Feature\_77 0.0190754 0.0814214 0.234 0.814914

Feature\_78 -0.1511883 0.0757840 -1.995 0.046873 \*

Feature\_79 -0.1261276 0.0668676 -1.886 0.060150 .

Feature\_80 0.1196666 0.0785691 1.523 0.128707

Feature\_81 -0.0049974 0.0729936 -0.068 0.945459

Feature\_82 -0.0176700 0.0841586 -0.210 0.833829

Feature\_83 0.0534362 0.0766033 0.698 0.485941

Feature\_84 0.0849566 0.0786024 1.081 0.280565

Feature\_85 0.0289729 0.0754789 0.384 0.701336

Feature\_86 0.1676853 0.0706075 2.375 0.018130 \*

Feature\_87 -0.1766106 0.0854784 -2.066 0.039602 \*

Feature\_88 -0.1653742 0.0708912 -2.333 0.020265 \*

Feature\_89 0.1171466 0.0684956 1.710 0.088163 .

Feature\_90 -0.1454616 0.0786961 -1.848 0.065448 .

Feature\_91 -0.0032654 0.0747366 -0.044 0.965177

Feature\_92 -0.0198442 0.0710732 -0.279 0.780262

Feature\_93 0.0858867 0.0769170 1.117 0.264979

Feature\_94 -0.0567776 0.0784997 -0.723 0.470022

Feature\_95 0.0938694 0.0672682 1.395 0.163827

Feature\_96 -0.0295536 0.0878867 -0.336 0.736884

Feature\_97 0.0845885 0.0824783 1.026 0.305845

Feature\_98 0.1128582 0.0897884 1.257 0.209674

Feature\_99 0.0687787 0.0823767 0.835 0.404367

Feature\_100 -0.0114983 0.0741006 -0.155 0.876782

Feature\_101 0.1052564 0.0813315 1.294 0.196521

Feature\_102 -0.0653939 0.0708941 -0.922 0.356991

Feature\_103 0.0784898 0.0710248 1.105 0.269927

Feature\_104 -0.0438382 0.0808911 -0.542 0.588228

Feature\_105 0.0039028 0.0736863 0.053 0.957792

Feature\_106 -0.0460598 0.0821709 -0.561 0.575498

Feature\_107 0.0406978 0.0949779 0.428 0.668571

Feature\_108 0.0726234 0.0776405 0.935 0.350282

Feature\_109 -0.0518805 0.0684905 -0.757 0.449305

Feature\_110 0.0357123 0.0684335 0.522 0.602125

Feature\_111 -0.0924108 0.0736582 -1.255 0.210524

Feature\_112 -0.1229102 0.0733732 -1.675 0.094863 .

Feature\_113 0.0025907 0.0728437 0.036 0.971650

Feature\_114 0.0492003 0.0692099 0.711 0.477662

Feature\_115 0.0561952 0.0680898 0.825 0.409797

Feature\_116 -0.0231599 0.0647136 -0.358 0.720661

Feature\_117 0.0573907 0.0799869 0.718 0.473577

Feature\_118 -0.0379053 0.0776630 -0.488 0.625824

Feature\_119 -0.0444844 0.0671968 -0.662 0.508436

Feature\_120 0.0200547 0.0663126 0.302 0.762519

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2507 on 327 degrees of freedom

Multiple R-squared: 0.5496, Adjusted R-squared: 0.3843

F-statistic: 3.325 on 120 and 327 DF, p-value: < 2.2e-16

**140**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60 + Feature\_61 + Feature\_62 + Feature\_63 +

Feature\_64 + Feature\_65 + Feature\_66 + Feature\_67 + Feature\_68 +

Feature\_69 + Feature\_70 + Feature\_71 + Feature\_72 + Feature\_73 +

Feature\_74 + Feature\_75 + Feature\_76 + Feature\_77 + Feature\_78 +

Feature\_79 + Feature\_80 + Feature\_81 + Feature\_82 + Feature\_83 +

Feature\_84 + Feature\_85 + Feature\_86 + Feature\_87 + Feature\_88 +

Feature\_89 + Feature\_90 + Feature\_91 + Feature\_92 + Feature\_93 +

Feature\_94 + Feature\_95 + Feature\_96 + Feature\_97 + Feature\_98 +

Feature\_99 + Feature\_100 + Feature\_101 + Feature\_102 + Feature\_103 +

Feature\_104 + Feature\_105 + Feature\_106 + Feature\_107 + Feature\_108 +

Feature\_109 + Feature\_110 + Feature\_111 + Feature\_112 + Feature\_113 +

Feature\_114 + Feature\_115 + Feature\_116 + Feature\_117 + Feature\_118 +

Feature\_119 + Feature\_120 + Feature\_121 + Feature\_122 + Feature\_123 +

Feature\_124 + Feature\_125 + Feature\_126 + Feature\_127 + Feature\_128 +

Feature\_129 + Feature\_130 + Feature\_131 + Feature\_132 + Feature\_133 +

Feature\_134 + Feature\_135 + Feature\_136 + Feature\_137 + Feature\_138 +

Feature\_139 + Feature\_140, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.72646 -0.14717 0.01088 0.16059 0.51347

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.5406859 0.4110972 3.748 0.000213 \*\*\*

Feature\_1 0.0045900 0.0505973 0.091 0.927776

Feature\_2 -0.0251639 0.0596955 -0.422 0.673658

Feature\_3 -0.7676142 0.0642543 -11.947 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0631165 -5.154 4.57e-07 \*\*\*

Feature\_5 0.0327330 0.0638417 0.513 0.608515

Feature\_6 0.1343901 0.0602985 2.229 0.026555 \*

Feature\_7 -0.2389986 0.0752288 -3.177 0.001640 \*\*

Feature\_8 -0.0653212 0.0663810 -0.984 0.325873

Feature\_9 0.1374186 0.0667311 2.059 0.040310 \*

Feature\_10 0.0145955 0.0663479 0.220 0.826030

Feature\_11 -0.0008078 0.0647322 -0.012 0.990051

Feature\_12 -0.2737430 0.0824359 -3.321 0.001006 \*\*

Feature\_13 0.1655582 0.0801761 2.065 0.039769 \*

Feature\_14 -0.0443782 0.0759710 -0.584 0.559551

Feature\_15 -0.0527245 0.0667322 -0.790 0.430084

Feature\_16 0.0020553 0.0749914 0.027 0.978153

Feature\_17 -0.0962716 0.0776251 -1.240 0.215844

Feature\_18 0.1978368 0.0741243 2.669 0.008013 \*\*

Feature\_19 0.0191660 0.0735484 0.261 0.794583

Feature\_20 -0.2202716 0.0739022 -2.981 0.003107 \*\*

Feature\_21 -0.1925679 0.1021616 -1.885 0.060383 .

Feature\_22 -0.3325447 0.0921728 -3.608 0.000360 \*\*\*

Feature\_23 0.0377985 0.0659453 0.573 0.566943

Feature\_24 0.1119444 0.0713942 1.568 0.117916

Feature\_25 -0.1504224 0.0788711 -1.907 0.057429 .

Feature\_26 0.1608733 0.0751856 2.140 0.033169 \*

Feature\_27 0.0525415 0.0612814 0.857 0.391904

Feature\_28 0.2995858 0.0746376 4.014 7.51e-05 \*\*\*

Feature\_29 -0.2696239 0.0838476 -3.216 0.001440 \*\*

Feature\_30 0.1004198 0.0927897 1.082 0.279999

Feature\_31 -0.0904703 0.0734677 -1.231 0.219105

Feature\_32 -0.0078364 0.0985768 -0.079 0.936690

Feature\_33 0.2289656 0.0803042 2.851 0.004650 \*\*

Feature\_34 -0.0629908 0.0765332 -0.823 0.411117

Feature\_35 0.0433010 0.0738576 0.586 0.558120

Feature\_36 0.1879619 0.0731952 2.568 0.010703 \*

Feature\_37 0.1280882 0.0815560 1.571 0.117316

Feature\_38 -0.0426162 0.0756298 -0.563 0.573517

Feature\_39 -0.0214347 0.0801653 -0.267 0.789355

Feature\_40 -0.0520430 0.0782830 -0.665 0.506674

Feature\_41 0.1772885 0.0716576 2.474 0.013897 \*

Feature\_42 -0.0634086 0.0738875 -0.858 0.391464

Feature\_43 -0.0470421 0.0777863 -0.605 0.545785

Feature\_44 0.0097491 0.0741215 0.132 0.895443

Feature\_45 -0.1121841 0.0709194 -1.582 0.114712

Feature\_46 -0.0317501 0.0708614 -0.448 0.654426

Feature\_47 -0.1459491 0.0793086 -1.840 0.066694 .

Feature\_48 -0.0231896 0.0664185 -0.349 0.727220

Feature\_49 0.0622968 0.0787626 0.791 0.429588

Feature\_50 0.0949115 0.0739889 1.283 0.200537

Feature\_51 0.0506167 0.0722392 0.701 0.484032

Feature\_52 -0.0689630 0.0841246 -0.820 0.412982

Feature\_53 -0.0230203 0.0936867 -0.246 0.806066

Feature\_54 -0.0827253 0.0640157 -1.292 0.197236

Feature\_55 -0.0415271 0.0810687 -0.512 0.608848

Feature\_56 -0.1346667 0.0855672 -1.574 0.116561

Feature\_57 -0.0077345 0.0877460 -0.088 0.929818

Feature\_58 -0.0700332 0.0796112 -0.880 0.379715

Feature\_59 -0.1757514 0.0773806 -2.271 0.023823 \*

Feature\_60 -0.0920661 0.0725904 -1.268 0.205653

Feature\_61 -0.0863954 0.0660272 -1.308 0.191688

Feature\_62 0.0497993 0.0639701 0.778 0.436887

Feature\_63 0.0249360 0.0824316 0.303 0.762471

Feature\_64 0.0628805 0.0797950 0.788 0.431290

Feature\_65 -0.0309610 0.0748681 -0.414 0.679500

Feature\_66 -0.0322139 0.0759691 -0.424 0.671834

Feature\_67 0.0770440 0.0632404 1.218 0.224056

Feature\_68 -0.0219871 0.0830881 -0.265 0.791477

Feature\_69 -0.1134988 0.0839890 -1.351 0.177577

Feature\_70 -0.1263167 0.0756876 -1.669 0.096152 .

Feature\_71 -0.0299072 0.0765803 -0.391 0.696413

Feature\_72 0.1317835 0.0960374 1.372 0.171000

Feature\_73 -0.0261023 0.0858066 -0.304 0.761182

Feature\_74 0.0491729 0.0734103 0.670 0.503465

Feature\_75 -0.0187807 0.0888623 -0.211 0.832758

Feature\_76 0.0207029 0.0763511 0.271 0.786455

Feature\_77 0.0249529 0.0852229 0.293 0.769876

Feature\_78 -0.1465595 0.0750212 -1.954 0.051660 .

Feature\_79 -0.1258139 0.0676041 -1.861 0.063694 .

Feature\_80 0.1211216 0.0796576 1.521 0.129407

Feature\_81 -0.0055894 0.0728103 -0.077 0.938859

Feature\_82 -0.0196369 0.0833084 -0.236 0.813812

Feature\_83 0.0534117 0.0780265 0.685 0.494155

Feature\_84 0.0792784 0.0794759 0.998 0.319300

Feature\_85 0.0116348 0.0788317 0.148 0.882763

Feature\_86 0.1728612 0.0734558 2.353 0.019240 \*

Feature\_87 -0.1727390 0.0829171 -2.083 0.038053 \*

Feature\_88 -0.1745184 0.0704899 -2.476 0.013833 \*

Feature\_89 0.0913090 0.0727510 1.255 0.210401

Feature\_90 -0.1520202 0.0799169 -1.902 0.058077 .

Feature\_91 -0.0238051 0.0724688 -0.328 0.742767

Feature\_92 -0.0173688 0.0699000 -0.248 0.803928

Feature\_93 0.0770078 0.0754772 1.020 0.308399

Feature\_94 -0.0687694 0.0644223 -1.067 0.286595

Feature\_95 -0.0982105 0.0834501 -1.177 0.240156

Feature\_96 -0.0378330 0.0862156 -0.439 0.661101

Feature\_97 0.0845625 0.0852548 0.992 0.322038

Feature\_98 0.1165408 0.0860605 1.354 0.176677

Feature\_99 -0.0482124 0.0822549 -0.586 0.558216

Feature\_100 -0.0300488 0.0803564 -0.374 0.708704

Feature\_101 0.1027768 0.0824350 1.247 0.213435

Feature\_102 -0.0835501 0.0793706 -1.053 0.293325

Feature\_103 0.0693923 0.0718513 0.966 0.334916

Feature\_104 -0.0039412 0.0686442 -0.057 0.954252

Feature\_105 -0.0477068 0.0754691 -0.632 0.527768

Feature\_106 0.0006127 0.0704968 0.009 0.993071

Feature\_107 0.0654228 0.0703418 0.930 0.353066

Feature\_108 -0.0357708 0.0697618 -0.513 0.608490

Feature\_109 0.0072491 0.0704487 0.103 0.918111

Feature\_110 -0.0432395 0.0800741 -0.540 0.589593

Feature\_111 0.1678200 0.0788224 2.129 0.034043 \*

Feature\_112 -0.0835360 0.0841999 -0.992 0.321923

Feature\_113 -0.0803104 0.0609732 -1.317 0.188773

Feature\_114 0.0154245 0.0790947 0.195 0.845511

Feature\_115 0.0105050 0.0680600 0.154 0.877436

Feature\_116 -0.0694603 0.0807874 -0.860 0.390575

Feature\_117 0.0100596 0.0719490 0.140 0.888897

Feature\_118 -0.0579759 0.0865485 -0.670 0.503447

Feature\_119 0.1117498 0.0836924 1.335 0.182786

Feature\_120 0.0176988 0.0685821 0.258 0.796527

Feature\_121 0.0575816 0.0718054 0.802 0.423224

Feature\_122 -0.0599756 0.0703718 -0.852 0.394730

Feature\_123 -0.0488851 0.0778484 -0.628 0.530502

Feature\_124 0.0300217 0.0785955 0.382 0.702743

Feature\_125 0.0056000 0.0664507 0.084 0.932894

Feature\_126 0.0159008 0.0812211 0.196 0.844918

Feature\_127 -0.0501340 0.0710242 -0.706 0.480803

Feature\_128 -0.1247737 0.0760764 -1.640 0.102006

Feature\_129 0.1790797 0.0830379 2.157 0.031813 \*

Feature\_130 0.0126786 0.0688554 0.184 0.854030

Feature\_131 -0.0022105 0.0793755 -0.028 0.977801

Feature\_132 0.0275002 0.0809472 0.340 0.734292

Feature\_133 -0.0813117 0.0735035 -1.106 0.269494

Feature\_134 -0.0796645 0.0689784 -1.155 0.249022

Feature\_135 0.0029852 0.0707789 0.042 0.966385

Feature\_136 0.0229312 0.0771197 0.297 0.766404

Feature\_137 -0.0055407 0.0792861 -0.070 0.944333

Feature\_138 -0.0881573 0.0801201 -1.100 0.272057

Feature\_139 -0.0652723 0.0699816 -0.933 0.351704

Feature\_140 -0.0111193 0.0829823 -0.134 0.893493

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.252 on 307 degrees of freedom

Multiple R-squared: 0.5728, Adjusted R-squared: 0.3781

F-statistic: 2.941 on 140 and 307 DF, p-value: 2.328e-15

**150**

lm(formula = pred\_prob ~ Feature\_1 + Feature\_2 + Feature\_3 +

Feature\_4 + Feature\_5 + Feature\_6 + Feature\_7 + Feature\_8 +

Feature\_9 + Feature\_10 + Feature\_11 + Feature\_12 + Feature\_13 +

Feature\_14 + Feature\_15 + Feature\_16 + Feature\_17 + Feature\_18 +

Feature\_19 + Feature\_20 + Feature\_21 + Feature\_22 + Feature\_23 +

Feature\_24 + Feature\_25 + Feature\_26 + Feature\_27 + Feature\_28 +

Feature\_29 + Feature\_30 + Feature\_31 + Feature\_32 + Feature\_33 +

Feature\_34 + Feature\_35 + Feature\_36 + Feature\_37 + Feature\_38 +

Feature\_39 + Feature\_40 + Feature\_41 + Feature\_42 + Feature\_43 +

Feature\_44 + Feature\_45 + Feature\_46 + Feature\_47 + Feature\_48 +

Feature\_49 + Feature\_50 + Feature\_51 + Feature\_52 + Feature\_53 +

Feature\_54 + Feature\_55 + Feature\_56 + Feature\_57 + Feature\_58 +

Feature\_59 + Feature\_60 + Feature\_61 + Feature\_62 + Feature\_63 +

Feature\_64 + Feature\_65 + Feature\_66 + Feature\_67 + Feature\_68 +

Feature\_69 + Feature\_70 + Feature\_71 + Feature\_72 + Feature\_73 +

Feature\_74 + Feature\_75 + Feature\_76 + Feature\_77 + Feature\_78 +

Feature\_79 + Feature\_80 + Feature\_81 + Feature\_82 + Feature\_83 +

Feature\_84 + Feature\_85 + Feature\_86 + Feature\_87 + Feature\_88 +

Feature\_89 + Feature\_90 + Feature\_91 + Feature\_92 + Feature\_93 +

Feature\_94 + Feature\_95 + Feature\_96 + Feature\_97 + Feature\_98 +

Feature\_99 + Feature\_100 + Feature\_101 + Feature\_102 + Feature\_103 +

Feature\_104 + Feature\_105 + Feature\_106 + Feature\_107 + Feature\_108 +

Feature\_109 + Feature\_110 + Feature\_111 + Feature\_112 + Feature\_113 +

Feature\_114 + Feature\_115 + Feature\_116 + Feature\_117 + Feature\_118 +

Feature\_119 + Feature\_120 + Feature\_121 + Feature\_122 + Feature\_123 +

Feature\_124 + Feature\_125 + Feature\_126 + Feature\_127 + Feature\_128 +

Feature\_129 + Feature\_130 + Feature\_131 + Feature\_132 + Feature\_133 +

Feature\_134 + Feature\_135 + Feature\_136 + Feature\_137 + Feature\_138 +

Feature\_139 + Feature\_140 + Feature\_141 + Feature\_142 + Feature\_143 +

Feature\_144 + Feature\_145 + Feature\_146 + Feature\_147 + Feature\_148 +

Feature\_149 + Feature\_150, data = normalized\_data)

Residuals:

Min 1Q Median 3Q Max

-0.61782 -0.14031 0.00976 0.14007 0.52545

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.6997266 0.4216391 4.031 7.06e-05 \*\*\*

Feature\_1 0.0045900 0.0503149 0.091 0.927374

Feature\_2 -0.0251639 0.0593623 -0.424 0.671943

Feature\_3 -0.7676142 0.0638956 -12.014 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0627642 -5.183 4.04e-07 \*\*\*

Feature\_5 0.0327330 0.0634853 0.516 0.606518

Feature\_6 0.1343901 0.0599619 2.241 0.025748 \*

Feature\_7 -0.2389986 0.0748088 -3.195 0.001550 \*\*

Feature\_8 -0.0653212 0.0660104 -0.990 0.323195

Feature\_9 0.1374186 0.0663586 2.071 0.039237 \*

Feature\_10 0.0145955 0.0659775 0.221 0.825074

Feature\_11 -0.0008078 0.0643709 -0.013 0.989996

Feature\_12 -0.2737431 0.0819757 -3.339 0.000947 \*\*\*

Feature\_13 0.1655582 0.0797285 2.077 0.038705 \*

Feature\_14 -0.0443782 0.0755469 -0.587 0.557364

Feature\_15 -0.0527246 0.0663597 -0.795 0.427523

Feature\_16 0.0020553 0.0745727 0.028 0.978031

Feature\_17 -0.0962717 0.0771918 -1.247 0.213316

Feature\_18 0.1978370 0.0737105 2.684 0.007684 \*\*

Feature\_19 0.0191658 0.0731378 0.262 0.793464

Feature\_20 -0.2202720 0.0734897 -2.997 0.002954 \*\*

Feature\_21 -0.1925676 0.1015913 -1.896 0.058995 .

Feature\_22 -0.3325439 0.0916583 -3.628 0.000336 \*\*\*

Feature\_23 0.0377990 0.0655773 0.576 0.564778

Feature\_24 0.1119441 0.0709957 1.577 0.115912

Feature\_25 -0.1504225 0.0784308 -1.918 0.056082 .

Feature\_26 0.1608719 0.0747655 2.152 0.032228 \*

Feature\_27 0.0525408 0.0609387 0.862 0.389278

Feature\_28 0.2995829 0.0742205 4.036 6.91e-05 \*\*\*

Feature\_29 -0.2696241 0.0833795 -3.234 0.001360 \*\*

Feature\_30 0.1004234 0.0922724 1.088 0.277329

Feature\_31 -0.0904711 0.0730582 -1.238 0.216567

Feature\_32 -0.0078359 0.0980270 -0.080 0.936342

Feature\_33 0.2289676 0.0798560 2.867 0.004437 \*\*

Feature\_34 -0.0629942 0.0761054 -0.828 0.408492

Feature\_35 0.0432922 0.0734452 0.589 0.556008

Feature\_36 0.1879539 0.0727869 2.582 0.010295 \*

Feature\_37 0.1280856 0.0811014 1.579 0.115326

Feature\_38 -0.0426116 0.0752048 -0.567 0.571409

Feature\_39 -0.0214347 0.0797169 -0.269 0.788205

Feature\_40 -0.0520386 0.0778474 -0.668 0.504353

Feature\_41 0.1773019 0.0712569 2.488 0.013387 \*

Feature\_42 -0.0633976 0.0734804 -0.863 0.388953

Feature\_43 -0.0470525 0.0773564 -0.608 0.543482

Feature\_44 0.0097000 0.0737110 0.132 0.895394

Feature\_45 -0.1121736 0.0705097 -1.591 0.112697

Feature\_46 -0.0317775 0.0704605 -0.451 0.652321

Feature\_47 -0.1459858 0.0788871 -1.851 0.065225 .

Feature\_48 -0.0231868 0.0660463 -0.351 0.725786

Feature\_49 0.0622327 0.0783250 0.795 0.427513

Feature\_50 0.0948459 0.0735544 1.289 0.198240

Feature\_51 0.0506123 0.0718350 0.705 0.481634

Feature\_52 -0.0689793 0.0836556 -0.825 0.410282

Feature\_53 -0.0231391 0.0931804 -0.248 0.804054

Feature\_54 -0.0828176 0.0636359 -1.301 0.194120

Feature\_55 -0.0415034 0.0806337 -0.515 0.607135

Feature\_56 -0.1346196 0.0851117 -1.582 0.114787

Feature\_57 -0.0076092 0.0872258 -0.087 0.930543

Feature\_58 -0.0698445 0.0791717 -0.882 0.378388

Feature\_59 -0.1754737 0.0769095 -2.282 0.023223 \*

Feature\_60 -0.0919939 0.0721333 -1.275 0.203188

Feature\_61 -0.0863821 0.0657464 -1.314 0.189904

Feature\_62 0.0494240 0.0635834 0.777 0.437594

Feature\_63 0.0244198 0.0818623 0.298 0.765681

Feature\_64 0.0621814 0.0793222 0.784 0.433718

Feature\_65 -0.0306196 0.0743445 -0.412 0.680739

Feature\_66 -0.0327514 0.0754941 -0.434 0.664729

Feature\_67 0.0769864 0.0630034 1.222 0.222699

Feature\_68 -0.0221732 0.0827207 -0.268 0.788848

Feature\_69 -0.1133445 0.0836025 -1.356 0.176207

Feature\_70 -0.1261779 0.0752092 -1.678 0.094459 .

Feature\_71 -0.0302976 0.0759778 -0.399 0.690350

Feature\_72 0.1313465 0.0957015 1.372 0.170956

Feature\_73 -0.0261303 0.0853389 -0.306 0.759671

Feature\_74 0.0493223 0.0732943 0.673 0.501512

Feature\_75 -0.0176114 0.0882405 -0.200 0.841942

Feature\_76 0.0191243 0.0762536 0.251 0.802143

Feature\_77 0.0235321 0.0854531 0.275 0.783215

Feature\_78 -0.1498523 0.0750880 -1.996 0.046881 \*

Feature\_79 -0.1248746 0.0669608 -1.865 0.063183 .

Feature\_80 0.1199209 0.0792493 1.513 0.131289

Feature\_81 -0.0056516 0.0717441 -0.079 0.937265

Feature\_82 -0.0217547 0.0831861 -0.262 0.793874

Feature\_83 0.0537253 0.0778767 0.690 0.490811

Feature\_84 0.0799174 0.0794876 1.005 0.315519

Feature\_85 0.0070656 0.0788548 0.090 0.928663

Feature\_86 0.1760672 0.0742772 2.370 0.018407 \*

Feature\_87 -0.1694637 0.0831446 -2.038 0.042418 \*

Feature\_88 -0.1746528 0.0703915 -2.481 0.013649 \*

Feature\_89 0.0992507 0.0720068 1.378 0.169133

Feature\_90 -0.1509341 0.0792215 -1.905 0.057718 .

Feature\_91 -0.0216321 0.0722349 -0.299 0.764792

Feature\_92 -0.0203764 0.0702003 -0.290 0.771820

Feature\_93 0.0738450 0.0759456 0.972 0.331672

Feature\_94 -0.0570208 0.0684141 -0.833 0.405252

Feature\_95 -0.1217899 0.0855044 -1.424 0.155389

Feature\_96 -0.0342652 0.0865738 -0.396 0.692542

Feature\_97 0.0890163 0.0860487 1.034 0.301750

Feature\_98 0.1221279 0.0852549 1.433 0.153052

Feature\_99 -0.0570296 0.0828495 -0.688 0.491769

Feature\_100 -0.0312385 0.0819563 -0.381 0.703357

Feature\_101 0.1095573 0.0823805 1.330 0.184574

Feature\_102 -0.0849665 0.0790807 -1.074 0.283503

Feature\_103 0.0658376 0.0701646 0.938 0.348836

Feature\_104 -0.0059833 0.0655712 -0.091 0.927356

Feature\_105 -0.0417407 0.0740915 -0.563 0.573610

Feature\_106 0.0064708 0.0707110 0.092 0.927149

Feature\_107 -0.0772845 0.0697075 -1.109 0.268458

Feature\_108 -0.0201184 0.0688143 -0.292 0.770217

Feature\_109 -0.0754915 0.0816532 -0.925 0.355957

Feature\_110 -0.0573728 0.0649066 -0.884 0.377450

Feature\_111 0.1609278 0.0778699 2.067 0.039636 \*

Feature\_112 -0.0724742 0.0815673 -0.889 0.374980

Feature\_113 -0.0969708 0.0648081 -1.496 0.135643

Feature\_114 0.0162041 0.0768763 0.211 0.833203

Feature\_115 0.0317838 0.0654484 0.486 0.627586

Feature\_116 -0.0596074 0.0793728 -0.751 0.453259

Feature\_117 -0.0652725 0.0675572 -0.966 0.334739

Feature\_118 -0.0337670 0.0767816 -0.440 0.660417

Feature\_119 0.0663181 0.0756573 0.877 0.381435

Feature\_120 0.0329821 0.0701566 0.470 0.638613

Feature\_121 -0.0659390 0.0698400 -0.944 0.345864

Feature\_122 0.0270841 0.0664236 0.408 0.683752

Feature\_123 -0.0084912 0.0697741 -0.122 0.903223

Feature\_124 0.0357154 0.0659150 0.542 0.588335

Feature\_125 0.0024766 0.0693892 0.036 0.971552

Feature\_126 -0.0174273 0.0729473 -0.239 0.811346

Feature\_127 -0.0215048 0.0738250 -0.291 0.771029

Feature\_128 -0.0671209 0.0656640 -1.022 0.307525

Feature\_129 -0.1774799 0.0777447 -2.283 0.023145 \*

Feature\_130 0.0185665 0.0687380 0.270 0.787267

Feature\_131 0.0932366 0.0791872 1.177 0.239971

Feature\_132 -0.0170951 0.0642525 -0.266 0.790377

Feature\_133 0.0307709 0.0689086 0.447 0.655528

Feature\_134 -0.0190365 0.0793406 -0.240 0.810547

Feature\_135 -0.0010079 0.0884788 -0.011 0.990919

Feature\_136 -0.0194940 0.0741707 -0.263 0.792866

Feature\_137 -0.1181857 0.0647947 -1.824 0.069157 .

Feature\_138 -0.0348515 0.0739044 -0.472 0.637576

Feature\_139 -0.0358566 0.0681796 -0.526 0.599340

Feature\_140 0.0519624 0.0793550 0.655 0.513098

Feature\_141 0.0560405 0.0858238 0.653 0.514280

Feature\_142 -0.0808708 0.0817309 -0.989 0.323236

Feature\_143 -0.0455664 0.0760810 -0.599 0.549684

Feature\_144 0.0302060 0.0728951 0.414 0.678898

Feature\_145 -0.0654222 0.0688844 -0.950 0.343017

Feature\_146 -0.0946282 0.0759822 -1.245 0.213967

Feature\_147 0.0722535 0.0755644 0.956 0.339756

Feature\_148 0.1950356 0.0725294 2.689 0.007570 \*\*

Feature\_149 -0.0195933 0.0688679 -0.285 0.776221

Feature\_150 0.0181290 0.0776477 0.233 0.815552

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2506 on 297 degrees of freedom

Multiple R-squared: 0.5914, Adjusted R-squared: 0.385

F-statistic: 2.865 on 150 and 297 DF, p-value: 6.17e-15

**160**

Residuals:

Min 1Q Median 3Q Max

-0.62430 -0.14015 0.00281 0.13893 0.51163

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.5641228 0.4409931 3.547 0.000455 \*\*\*

Feature\_1 0.0045900 0.0508089 0.090 0.928081

Feature\_2 -0.0251639 0.0599452 -0.420 0.674959

Feature\_3 -0.7676142 0.0645231 -11.897 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0633805 -5.133 5.27e-07 \*\*\*

Feature\_5 0.0327330 0.0641087 0.511 0.610034

Feature\_6 0.1343901 0.0605507 2.219 0.027237 \*

Feature\_7 -0.2389986 0.0755435 -3.164 0.001725 \*\*

Feature\_8 -0.0653212 0.0666586 -0.980 0.327943

Feature\_9 0.1374186 0.0670103 2.051 0.041203 \*

Feature\_10 0.0145955 0.0666254 0.219 0.826753

Feature\_11 -0.0008078 0.0650030 -0.012 0.990093

Feature\_12 -0.2737431 0.0827807 -3.307 0.001064 \*\*

Feature\_13 0.1655582 0.0805114 2.056 0.040655 \*

Feature\_14 -0.0443782 0.0762888 -0.582 0.561217

Feature\_15 -0.0527245 0.0670113 -0.787 0.432048

Feature\_16 0.0020554 0.0753050 0.027 0.978244

Feature\_17 -0.0962716 0.0779498 -1.235 0.217823

Feature\_18 0.1978370 0.0744344 2.658 0.008304 \*\*

Feature\_19 0.0191658 0.0738560 0.260 0.795434

Feature\_20 -0.2202719 0.0742113 -2.968 0.003248 \*\*

Feature\_21 -0.1925677 0.1025889 -1.877 0.061521 .

Feature\_22 -0.3325442 0.0925584 -3.593 0.000385 \*\*\*

Feature\_23 0.0377990 0.0662212 0.571 0.568582

Feature\_24 0.1119444 0.0716929 1.561 0.119521

Feature\_25 -0.1504228 0.0792010 -1.899 0.058534 .

Feature\_26 0.1608719 0.0754999 2.131 0.033959 \*

Feature\_27 0.0525408 0.0615373 0.854 0.393925

Feature\_28 0.2995842 0.0749495 3.997 8.16e-05 \*\*\*

Feature\_29 -0.2696256 0.0841987 -3.202 0.001517 \*\*

Feature\_30 0.1004212 0.0931784 1.078 0.282059

Feature\_31 -0.0904710 0.0737752 -1.226 0.221089

Feature\_32 -0.0078349 0.0989888 -0.079 0.936969

Feature\_33 0.2289651 0.0806398 2.839 0.004843 \*\*

Feature\_34 -0.0629916 0.0768533 -0.820 0.413105

Feature\_35 0.0432952 0.0741659 0.584 0.559839

Feature\_36 0.1879550 0.0735017 2.557 0.011068 \*

Feature\_37 0.1280849 0.0818978 1.564 0.118929

Feature\_38 -0.0426137 0.0759429 -0.561 0.575148

Feature\_39 -0.0214365 0.0804990 -0.266 0.790203

Feature\_40 -0.0520378 0.0786114 -0.662 0.508527

Feature\_41 0.1773075 0.0719579 2.464 0.014324 \*

Feature\_42 -0.0633988 0.0741991 -0.854 0.393573

Feature\_43 -0.0470663 0.0781167 -0.603 0.547309

Feature\_44 0.0097091 0.0744357 0.130 0.896313

Feature\_45 -0.1121830 0.0712042 -1.576 0.116241

Feature\_46 -0.0317811 0.0711506 -0.447 0.655447

Feature\_47 -0.1459622 0.0796502 -1.833 0.067907 .

Feature\_48 -0.0231904 0.0667009 -0.348 0.728337

Feature\_49 0.0622572 0.0790937 0.787 0.431854

Feature\_50 0.0948488 0.0742769 1.277 0.202648

Feature\_51 0.0505929 0.0725427 0.697 0.486103

Feature\_52 -0.0689748 0.0844794 -0.816 0.414909

Feature\_53 -0.0230726 0.0940991 -0.245 0.806481

Feature\_54 -0.0827987 0.0642702 -1.288 0.198682

Feature\_55 -0.0414912 0.0814101 -0.510 0.610684

Feature\_56 -0.1347520 0.0859817 -1.567 0.118166

Feature\_57 -0.0077087 0.0880984 -0.088 0.930334

Feature\_58 -0.0698921 0.0799286 -0.874 0.382614

Feature\_59 -0.1755330 0.0776759 -2.260 0.024583 \*

Feature\_60 -0.0919884 0.0728709 -1.262 0.207849

Feature\_61 -0.0863005 0.0663604 -1.300 0.194479

Feature\_62 0.0493748 0.0642129 0.769 0.442572

Feature\_63 0.0245138 0.0827155 0.296 0.767167

Feature\_64 0.0625001 0.0801605 0.780 0.436218

Feature\_65 -0.0305932 0.0750782 -0.407 0.683956

Feature\_66 -0.0328222 0.0761989 -0.431 0.666978

Feature\_67 0.0769408 0.0635744 1.210 0.227179

Feature\_68 -0.0221942 0.0835339 -0.266 0.790668

Feature\_69 -0.1131492 0.0843434 -1.342 0.180809

Feature\_70 -0.1258875 0.0759089 -1.658 0.098329 .

Feature\_71 -0.0300008 0.0767917 -0.391 0.696325

Feature\_72 0.1318802 0.0965948 1.365 0.173230

Feature\_73 -0.0260089 0.0861446 -0.302 0.762931

Feature\_74 0.0490801 0.0739340 0.664 0.507328

Feature\_75 -0.0176217 0.0891316 -0.198 0.843416

Feature\_76 0.0188349 0.0771565 0.244 0.807317

Feature\_77 0.0240803 0.0862854 0.279 0.780386

Feature\_78 -0.1502674 0.0758831 -1.980 0.048630 \*

Feature\_79 -0.1251516 0.0676565 -1.850 0.065369 .

Feature\_80 0.1198607 0.0799705 1.499 0.135022

Feature\_81 -0.0050531 0.0727126 -0.069 0.944644

Feature\_82 -0.0212739 0.0842644 -0.252 0.800861

Feature\_83 0.0526161 0.0783662 0.671 0.502498

Feature\_84 0.0814949 0.0805684 1.011 0.312629

Feature\_85 0.0140227 0.0793970 0.177 0.859935

Feature\_86 0.1729975 0.0735970 2.351 0.019420 \*

Feature\_87 -0.1691284 0.0838601 -2.017 0.044648 \*

Feature\_88 -0.1755279 0.0711969 -2.465 0.014272 \*

Feature\_89 0.0992941 0.0722003 1.375 0.170123

Feature\_90 -0.1499921 0.0799585 -1.876 0.061688 .

Feature\_91 -0.0218705 0.0726492 -0.301 0.763600

Feature\_92 -0.0178992 0.0699244 -0.256 0.798150

Feature\_93 0.0749309 0.0763121 0.982 0.326976

Feature\_94 -0.0627415 0.0675778 -0.928 0.353963

Feature\_95 -0.1155972 0.0866760 -1.334 0.183369

Feature\_96 -0.0342360 0.0873073 -0.392 0.695251

Feature\_97 0.0885364 0.0863200 1.026 0.305908

Feature\_98 0.1216490 0.0857712 1.418 0.157189

Feature\_99 -0.0514050 0.0829240 -0.620 0.535812

Feature\_100 -0.0153169 0.0810915 -0.189 0.850317

Feature\_101 0.1023559 0.0825848 1.239 0.216209

Feature\_102 -0.0863486 0.0808246 -1.068 0.286263

Feature\_103 0.0692855 0.0707605 0.979 0.328328

Feature\_104 0.0007800 0.0666511 0.012 0.990671

Feature\_105 -0.0438539 0.0751099 -0.584 0.559771

Feature\_106 0.0104648 0.0702510 0.149 0.881688

Feature\_107 -0.0730756 0.0685378 -1.066 0.287226

Feature\_108 -0.0264074 0.0714783 -0.369 0.712067

Feature\_109 -0.0759144 0.0849540 -0.894 0.372288

Feature\_110 0.0495853 0.0657688 0.754 0.451507

Feature\_111 -0.1583989 0.0786532 -2.014 0.044954 \*

Feature\_112 -0.0869577 0.0832047 -1.045 0.296853

Feature\_113 0.0859366 0.0644406 1.334 0.183400

Feature\_114 0.0179100 0.0798807 0.224 0.822754

Feature\_115 0.0420703 0.0645391 0.652 0.515015

Feature\_116 -0.0694131 0.0795147 -0.873 0.383415

Feature\_117 -0.0752859 0.0767541 -0.981 0.327482

Feature\_118 0.0009738 0.0775761 0.013 0.989993

Feature\_119 0.0859594 0.0827410 1.039 0.299727

Feature\_120 0.0140206 0.0713909 0.196 0.844443

Feature\_121 -0.0791807 0.0688555 -1.150 0.251120

Feature\_122 -0.0105404 0.0707991 -0.149 0.881755

Feature\_123 -0.0322373 0.0693158 -0.465 0.642228

Feature\_124 0.0180236 0.0640539 0.281 0.778620

Feature\_125 0.0089361 0.0729658 0.122 0.902613

Feature\_126 -0.0009036 0.0780478 -0.012 0.990771

Feature\_127 -0.0159679 0.0831597 -0.192 0.847866

Feature\_128 -0.0183140 0.0678069 -0.270 0.787285

Feature\_129 0.1766024 0.0730560 2.417 0.016257 \*

Feature\_130 -0.0211305 0.0729665 -0.290 0.772337

Feature\_131 -0.1018487 0.0808738 -1.259 0.208926

Feature\_132 0.0345739 0.0674779 0.512 0.608784

Feature\_133 -0.0544726 0.0726411 -0.750 0.453937

Feature\_134 0.0122595 0.0848369 0.145 0.885202

Feature\_135 0.0003184 0.0777356 0.004 0.996734

Feature\_136 -0.1006608 0.0672640 -1.497 0.135622

Feature\_137 -0.0325044 0.0691173 -0.470 0.638512

Feature\_138 -0.0412072 0.0680578 -0.605 0.545343

Feature\_139 -0.0735817 0.0782663 -0.940 0.347934

Feature\_140 0.0063300 0.0718476 0.088 0.929856

Feature\_141 0.0058751 0.0696549 0.084 0.932841

Feature\_142 0.0023430 0.0760465 0.031 0.975442

Feature\_143 -0.0371294 0.0744698 -0.499 0.618455

Feature\_144 0.0558725 0.0726119 0.769 0.442248

Feature\_145 0.0618716 0.0822170 0.753 0.452343

Feature\_146 -0.0233540 0.0756705 -0.309 0.757828

Feature\_147 -0.0864967 0.0843278 -1.026 0.305888

Feature\_148 0.1152350 0.0707147 1.630 0.104288

Feature\_149 0.1608870 0.0698382 2.304 0.021953 \*

Feature\_150 0.0331711 0.0748548 0.443 0.657999

Feature\_151 0.0641078 0.0853951 0.751 0.453437

Feature\_152 0.0026055 0.0730683 0.036 0.971580

Feature\_153 0.0780473 0.0764492 1.021 0.308160

Feature\_154 -0.0157588 0.0632029 -0.249 0.803278

Feature\_155 -0.1125949 0.0688132 -1.636 0.102886

Feature\_156 -0.0161102 0.0746511 -0.216 0.829291

Feature\_157 0.0215645 0.0705835 0.306 0.760193

Feature\_158 0.0489173 0.0708694 0.690 0.490598

Feature\_159 0.0373395 0.0722572 0.517 0.605723

Feature\_160 -0.0675476 0.0804670 -0.839 0.401919

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.253 on 287 degrees of freedom

Multiple R-squared: 0.5973, Adjusted R-squared: 0.3728

F-statistic: 2.661 on 160 and 287 DF, p-value: 2.723e-13

**180**

Residuals:

Min 1Q Median 3Q Max

-0.63857 -0.12606 0.00523 0.13714 0.54752

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.4113486 0.4715505 2.993 0.003021 \*\*

Feature\_1 0.0045900 0.0511167 0.090 0.928517

Feature\_2 -0.0251639 0.0603083 -0.417 0.676828

Feature\_3 -0.7676142 0.0649139 -11.825 < 2e-16 \*\*\*

Feature\_4 -0.3253263 0.0637644 -5.102 6.39e-07 \*\*\*

Feature\_5 0.0327330 0.0644971 0.508 0.612215

Feature\_6 0.1343901 0.0609175 2.206 0.028229 \*

Feature\_7 -0.2389986 0.0760010 -3.145 0.001851 \*\*

Feature\_8 -0.0653212 0.0670624 -0.974 0.330920

Feature\_9 0.1374186 0.0674161 2.038 0.042499 \*

Feature\_10 0.0145955 0.0670290 0.218 0.827791

Feature\_11 -0.0008078 0.0653968 -0.012 0.990153

Feature\_12 -0.2737431 0.0832821 -3.287 0.001149 \*\*

Feature\_13 0.1655582 0.0809991 2.044 0.041940 \*

Feature\_14 -0.0443782 0.0767509 -0.578 0.563609

Feature\_15 -0.0527245 0.0674172 -0.782 0.434870

Feature\_16 0.0020554 0.0757612 0.027 0.978376

Feature\_17 -0.0962716 0.0784220 -1.228 0.220674

Feature\_18 0.1978370 0.0748852 2.642 0.008731 \*\*

Feature\_19 0.0191658 0.0743034 0.258 0.796652

Feature\_20 -0.2202719 0.0746608 -2.950 0.003456 \*\*

Feature\_21 -0.1925676 0.1032103 -1.866 0.063169 .

Feature\_22 -0.3325442 0.0931190 -3.571 0.000421 \*\*\*

Feature\_23 0.0377991 0.0666223 0.567 0.570944

Feature\_24 0.1119442 0.0721271 1.552 0.121837

Feature\_25 -0.1504227 0.0796808 -1.888 0.060135 .

Feature\_26 0.1608721 0.0759572 2.118 0.035105 \*

Feature\_27 0.0525411 0.0619102 0.849 0.396827

Feature\_28 0.2995836 0.0754035 3.973 9.13e-05 \*\*\*

Feature\_29 -0.2696251 0.0847086 -3.183 0.001630 \*\*

Feature\_30 0.1004216 0.0937430 1.071 0.285027

Feature\_31 -0.0904713 0.0742222 -1.219 0.223948

Feature\_32 -0.0078351 0.0995887 -0.079 0.937350

Feature\_33 0.2289658 0.0811283 2.822 0.005127 \*\*

Feature\_34 -0.0629922 0.0773185 -0.815 0.415964

Feature\_35 0.0432930 0.0746147 0.580 0.562255

Feature\_36 0.1879536 0.0739469 2.542 0.011596 \*

Feature\_37 0.1280872 0.0823948 1.555 0.121237

Feature\_38 -0.0426132 0.0764030 -0.558 0.577487

Feature\_39 -0.0214359 0.0809865 -0.265 0.791457

Feature\_40 -0.0520390 0.0790878 -0.658 0.511111

Feature\_41 0.1773060 0.0723928 2.449 0.014960 \*

Feature\_42 -0.0633991 0.0746486 -0.849 0.396475

Feature\_43 -0.0470683 0.0785911 -0.599 0.549746

Feature\_44 0.0097038 0.0748865 0.130 0.896996

Feature\_45 -0.1121807 0.0716344 -1.566 0.118529

Feature\_46 -0.0317858 0.0715827 -0.444 0.657371

Feature\_47 -0.1459579 0.0801339 -1.821 0.069661 .

Feature\_48 -0.0231981 0.0671016 -0.346 0.729828

Feature\_49 0.0622456 0.0795722 0.782 0.434759

Feature\_50 0.0948458 0.0747291 1.269 0.205477

Feature\_51 0.0506270 0.0729775 0.694 0.488452

Feature\_52 -0.0689774 0.0849877 -0.812 0.417735

Feature\_53 -0.0230726 0.0946692 -0.244 0.807636

Feature\_54 -0.0828046 0.0646578 -1.281 0.201424

Feature\_55 -0.0415186 0.0819110 -0.507 0.612661

Feature\_56 -0.1347011 0.0864944 -1.557 0.120575

Feature\_57 -0.0076669 0.0886305 -0.087 0.931130

Feature\_58 -0.0698675 0.0804056 -0.869 0.385661

Feature\_59 -0.1754882 0.0781326 -2.246 0.025520 \*

Feature\_60 -0.0919965 0.0733046 -1.255 0.210580

Feature\_61 -0.0863601 0.0667643 -1.294 0.196953

Feature\_62 0.0493584 0.0646144 0.764 0.445607

Feature\_63 0.0244733 0.0832287 0.294 0.768949

Feature\_64 0.0624878 0.0806303 0.775 0.439030

Feature\_65 -0.0306128 0.0755445 -0.405 0.685633

Feature\_66 -0.0328052 0.0766653 -0.428 0.669067

Feature\_67 0.0769266 0.0639544 1.203 0.230106

Feature\_68 -0.0221942 0.0840500 -0.264 0.791937

Feature\_69 -0.1134872 0.0849288 -1.336 0.182601

Feature\_70 -0.1261188 0.0764327 -1.650 0.100106

Feature\_71 -0.0300326 0.0772552 -0.389 0.697775

Feature\_72 0.1318460 0.0971757 1.357 0.175997

Feature\_73 -0.0259686 0.0866536 -0.300 0.764652

Feature\_74 0.0489912 0.0743658 0.659 0.510600

Feature\_75 -0.0177990 0.0896911 -0.198 0.842846

Feature\_76 0.0186313 0.0775588 0.240 0.810343

Feature\_77 0.0236707 0.0868056 0.273 0.785305

Feature\_78 -0.1503841 0.0763840 -1.969 0.050011 .

Feature\_79 -0.1252570 0.0680650 -1.840 0.066840 .

Feature\_80 0.1202067 0.0804806 1.494 0.136458

Feature\_81 -0.0049936 0.0731570 -0.068 0.945631

Feature\_82 -0.0216229 0.0844864 -0.256 0.798199

Feature\_83 0.0528171 0.0789110 0.669 0.503866

Feature\_84 0.0812581 0.0809576 1.004 0.316426

Feature\_85 0.0137008 0.0798840 0.172 0.863954

Feature\_86 0.1735067 0.0741369 2.340 0.020002 \*

Feature\_87 -0.1675616 0.0843985 -1.985 0.048127 \*

Feature\_88 -0.1747980 0.0715825 -2.442 0.015259 \*

Feature\_89 0.1010033 0.0726501 1.390 0.165604

Feature\_90 -0.1502606 0.0804054 -1.869 0.062747 .

Feature\_91 -0.0218597 0.0730692 -0.299 0.765048

Feature\_92 -0.0190253 0.0708982 -0.268 0.788639

Feature\_93 0.0740326 0.0769807 0.962 0.337069

Feature\_94 -0.0609661 0.0683056 -0.893 0.372903

Feature\_95 -0.1173306 0.0870692 -1.348 0.178944

Feature\_96 -0.0333449 0.0876293 -0.381 0.703861

Feature\_97 0.0884940 0.0871413 1.016 0.310776

Feature\_98 0.1215484 0.0862525 1.409 0.159935

Feature\_99 -0.0504643 0.0834488 -0.605 0.545870

Feature\_100 -0.0148894 0.0818330 -0.182 0.855761

Feature\_101 0.1034007 0.0830359 1.245 0.214131

Feature\_102 -0.0854926 0.0810636 -1.055 0.292546

Feature\_103 0.0682398 0.0710870 0.960 0.337950

Feature\_104 0.0015835 0.0679187 0.023 0.981417

Feature\_105 -0.0436809 0.0755959 -0.578 0.563872

Feature\_106 0.0069244 0.0709207 0.098 0.922295

Feature\_107 -0.0726194 0.0687696 -1.056 0.291931

Feature\_108 -0.0263770 0.0718642 -0.367 0.713881

Feature\_109 -0.0790422 0.0857749 -0.922 0.357617

Feature\_110 0.0479749 0.0655605 0.732 0.464954

Feature\_111 -0.1630061 0.0795275 -2.050 0.041372 \*

Feature\_112 -0.0738479 0.0839860 -0.879 0.380036

Feature\_113 -0.0919295 0.0651272 -1.412 0.159251

Feature\_114 0.0168091 0.0803029 0.209 0.834357

Feature\_115 0.0406715 0.0651529 0.624 0.532999

Feature\_116 -0.0679047 0.0814468 -0.834 0.405178

Feature\_117 -0.0727858 0.0749298 -0.971 0.332235

Feature\_118 -0.0097698 0.0761994 -0.128 0.898077

Feature\_119 0.0779026 0.0827278 0.942 0.347211

Feature\_120 0.0186031 0.0724172 0.257 0.797463

Feature\_121 -0.0770145 0.0704411 -1.093 0.275240

Feature\_122 0.0123916 0.0719080 0.172 0.863312

Feature\_123 -0.0296461 0.0719895 -0.412 0.680808

Feature\_124 0.0286612 0.0634003 0.452 0.651587

Feature\_125 0.0123671 0.0710633 0.174 0.861975

Feature\_126 0.0016624 0.0778747 0.021 0.982985

Feature\_127 -0.0116319 0.0845192 -0.138 0.890641

Feature\_128 -0.0201683 0.0629197 -0.321 0.748809

Feature\_129 0.2054048 0.0820403 2.504 0.012887 \*

Feature\_130 0.0252603 0.0677105 0.373 0.709397

Feature\_131 -0.0871424 0.0787627 -1.106 0.269553

Feature\_132 0.0311278 0.0678195 0.459 0.646622

Feature\_133 0.0515359 0.0659227 0.782 0.435047

Feature\_134 -0.0147745 0.0872506 -0.169 0.865662

Feature\_135 -0.0077709 0.0784847 -0.099 0.921203

Feature\_136 -0.1011580 0.0663495 -1.525 0.128536

Feature\_137 -0.0348780 0.0745481 -0.468 0.640267

Feature\_138 -0.0441918 0.0679979 -0.650 0.516316

Feature\_139 -0.0864864 0.0746644 -1.158 0.247762

Feature\_140 -0.0078449 0.0696250 -0.113 0.910374

Feature\_141 0.0033586 0.0708438 0.047 0.962223

Feature\_142 0.0142656 0.0781817 0.182 0.855354

Feature\_143 -0.0306471 0.0832166 -0.368 0.712955

Feature\_144 -0.0568799 0.0805134 -0.706 0.480515

Feature\_145 0.0336240 0.0870013 0.386 0.699451

Feature\_146 -0.0167557 0.0697987 -0.240 0.810470

Feature\_147 -0.0794375 0.0817488 -0.972 0.332066

Feature\_148 0.1625232 0.0715521 2.271 0.023919 \*

Feature\_149 0.1258258 0.0694641 1.811 0.071206 .

Feature\_150 0.0474737 0.0788867 0.602 0.547821

Feature\_151 -0.0251742 0.0710202 -0.354 0.723270

Feature\_152 0.0366185 0.0854707 0.428 0.668681

Feature\_153 0.0554052 0.0794013 0.698 0.485917

Feature\_154 0.0331315 0.0736498 0.450 0.653182

Feature\_155 -0.0131608 0.0830293 -0.159 0.874176

Feature\_156 0.0925436 0.0753893 1.228 0.220700

Feature\_157 0.0609322 0.0860673 0.708 0.479588

Feature\_158 -0.0947134 0.0811465 -1.167 0.244175

Feature\_159 -0.0118960 0.0638513 -0.186 0.852345

Feature\_160 0.0642803 0.0827965 0.776 0.438221

Feature\_161 0.0810081 0.0699916 1.157 0.248144

Feature\_162 0.0483166 0.0739439 0.653 0.514046

Feature\_163 0.0641347 0.0748294 0.857 0.392170

Feature\_164 0.0035343 0.0780715 0.045 0.963926

Feature\_165 0.0592619 0.0778333 0.761 0.447093

Feature\_166 0.0170748 0.0687449 0.248 0.804031

Feature\_167 -0.0377189 0.0728809 -0.518 0.605206

Feature\_168 0.0540015 0.1008663 0.535 0.592835

Feature\_169 -0.0475270 0.0688243 -0.691 0.490445

Feature\_170 0.0676962 0.0756829 0.894 0.371875

Feature\_171 -0.0605768 0.0767494 -0.789 0.430649

Feature\_172 0.1043441 0.0694333 1.503 0.134073

Feature\_173 -0.0412280 0.0697469 -0.591 0.554948

Feature\_174 -0.0921047 0.0728284 -1.265 0.207089

Feature\_175 -0.0995079 0.0722052 -1.378 0.169318

Feature\_176 0.0623256 0.0823690 0.757 0.449919

Feature\_177 -0.0394861 0.0741947 -0.532 0.595033

Feature\_178 0.1407835 0.0809235 1.740 0.083062 .

Feature\_179 -0.0524955 0.0781131 -0.672 0.502137

Feature\_180 0.0578849 0.0758384 0.763 0.445978

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2546 on 267 degrees of freedom

Multiple R-squared: 0.6208, Adjusted R-squared: 0.3652

F-statistic: 2.429 on 180 and 267 DF, p-value: 2.186e-11

**200**

Residuals:

Min 1Q Median 3Q Max

-0.5745 -0.1277 0.0002 0.1325 0.5160

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 1.360e+00 5.023e-01 2.707 0.007259 \*\*

Feature\_1 4.590e-03 5.165e-02 0.089 0.929256

Feature\_2 -2.516e-02 6.094e-02 -0.413 0.679995

Feature\_3 -7.676e-01 6.559e-02 -11.703 < 2e-16 \*\*\*

Feature\_4 -3.253e-01 6.443e-02 -5.049 8.61e-07 \*\*\*

Feature\_5 3.273e-02 6.517e-02 0.502 0.615913

Feature\_6 1.344e-01 6.155e-02 2.183 0.029948 \*

Feature\_7 -2.390e-01 7.679e-02 -3.112 0.002075 \*\*

Feature\_8 -6.532e-02 6.776e-02 -0.964 0.335984

Feature\_9 1.374e-01 6.812e-02 2.017 0.044737 \*

Feature\_10 1.460e-02 6.773e-02 0.216 0.829549

Feature\_11 -8.078e-04 6.608e-02 -0.012 0.990255

Feature\_12 -2.737e-01 8.415e-02 -3.253 0.001301 \*\*

Feature\_13 1.656e-01 8.184e-02 2.023 0.044160 \*

Feature\_14 -4.438e-02 7.755e-02 -0.572 0.567667

Feature\_15 -5.272e-02 6.812e-02 -0.774 0.439663

Feature\_16 2.055e-03 7.655e-02 0.027 0.978601

Feature\_17 -9.627e-02 7.924e-02 -1.215 0.225536

Feature\_18 1.978e-01 7.566e-02 2.615 0.009480 \*\*

Feature\_19 1.917e-02 7.508e-02 0.255 0.798715

Feature\_20 -2.203e-01 7.544e-02 -2.920 0.003825 \*\*

Feature\_21 -1.926e-01 1.043e-01 -1.847 0.066005 .

Feature\_22 -3.325e-01 9.409e-02 -3.534 0.000488 \*\*\*

Feature\_23 3.780e-02 6.732e-02 0.562 0.574950

Feature\_24 1.119e-01 7.288e-02 1.536 0.125802

Feature\_25 -1.504e-01 8.051e-02 -1.868 0.062892 .

Feature\_26 1.609e-01 7.675e-02 2.096 0.037088 \*

Feature\_27 5.254e-02 6.255e-02 0.840 0.401758

Feature\_28 2.996e-01 7.619e-02 3.932 0.000109 \*\*\*

Feature\_29 -2.696e-01 8.559e-02 -3.150 0.001833 \*\*

Feature\_30 1.004e-01 9.472e-02 1.060 0.290082

Feature\_31 -9.047e-02 7.499e-02 -1.206 0.228828

Feature\_32 -7.835e-03 1.006e-01 -0.078 0.938003

Feature\_33 2.290e-01 8.197e-02 2.793 0.005627 \*\*

Feature\_34 -6.299e-02 7.812e-02 -0.806 0.420831

Feature\_35 4.329e-02 7.539e-02 0.574 0.566321

Feature\_36 1.880e-01 7.472e-02 2.516 0.012520 \*

Feature\_37 1.281e-01 8.325e-02 1.539 0.125190

Feature\_38 -4.261e-02 7.720e-02 -0.552 0.581449

Feature\_39 -2.144e-02 8.183e-02 -0.262 0.793562

Feature\_40 -5.204e-02 7.991e-02 -0.651 0.515500

Feature\_41 1.773e-01 7.315e-02 2.424 0.016070 \*

Feature\_42 -6.340e-02 7.542e-02 -0.841 0.401415

Feature\_43 -4.707e-02 7.941e-02 -0.593 0.553908

Feature\_44 9.703e-03 7.567e-02 0.128 0.898069

Feature\_45 -1.122e-01 7.238e-02 -1.550 0.122441

Feature\_46 -3.179e-02 7.233e-02 -0.440 0.660653

Feature\_47 -1.460e-01 8.097e-02 -1.803 0.072659 .

Feature\_48 -2.319e-02 6.780e-02 -0.342 0.732559

Feature\_49 6.224e-02 8.040e-02 0.774 0.439577

Feature\_50 9.485e-02 7.551e-02 1.256 0.210240

Feature\_51 5.063e-02 7.374e-02 0.687 0.492991

Feature\_52 -6.897e-02 8.587e-02 -0.803 0.422648

Feature\_53 -2.306e-02 9.565e-02 -0.241 0.809658

Feature\_54 -8.280e-02 6.533e-02 -1.267 0.206191

Feature\_55 -4.152e-02 8.276e-02 -0.502 0.616347

Feature\_56 -1.347e-01 8.740e-02 -1.541 0.124534

Feature\_57 -7.679e-03 8.955e-02 -0.086 0.931735

Feature\_58 -6.989e-02 8.125e-02 -0.860 0.390505

Feature\_59 -1.755e-01 7.895e-02 -2.223 0.027117 \*

Feature\_60 -9.199e-02 7.407e-02 -1.242 0.215420

Feature\_61 -8.636e-02 6.746e-02 -1.280 0.201702

Feature\_62 4.939e-02 6.528e-02 0.757 0.450049

Feature\_63 2.446e-02 8.410e-02 0.291 0.771359

Feature\_64 6.251e-02 8.147e-02 0.767 0.443655

Feature\_65 -3.061e-02 7.633e-02 -0.401 0.688718

Feature\_66 -3.279e-02 7.747e-02 -0.423 0.672480

Feature\_67 7.691e-02 6.462e-02 1.190 0.235159

Feature\_68 -2.218e-02 8.492e-02 -0.261 0.794183

Feature\_69 -1.134e-01 8.580e-02 -1.322 0.187545

Feature\_70 -1.261e-01 7.721e-02 -1.633 0.103791

Feature\_71 -3.002e-02 7.806e-02 -0.385 0.700839

Feature\_72 1.317e-01 9.818e-02 1.342 0.180875

Feature\_73 -2.594e-02 8.756e-02 -0.296 0.767242

Feature\_74 4.903e-02 7.516e-02 0.652 0.514755

Feature\_75 -1.774e-02 9.062e-02 -0.196 0.844980

Feature\_76 1.873e-02 7.838e-02 0.239 0.811316

Feature\_77 2.375e-02 8.772e-02 0.271 0.786802

Feature\_78 -1.503e-01 7.715e-02 -1.948 0.052582 .

Feature\_79 -1.253e-01 6.878e-02 -1.821 0.069808 .

Feature\_80 1.201e-01 8.132e-02 1.477 0.140961

Feature\_81 -4.908e-03 7.390e-02 -0.066 0.947104

Feature\_82 -2.158e-02 8.538e-02 -0.253 0.800717

Feature\_83 5.275e-02 7.973e-02 0.662 0.508875

Feature\_84 8.127e-02 8.179e-02 0.994 0.321369

Feature\_85 1.369e-02 8.070e-02 0.170 0.865474

Feature\_86 1.735e-01 7.491e-02 2.316 0.021358 \*

Feature\_87 -1.676e-01 8.526e-02 -1.966 0.050384 .

Feature\_88 -1.747e-01 7.234e-02 -2.414 0.016485 \*

Feature\_89 1.009e-01 7.341e-02 1.374 0.170661

Feature\_90 -1.502e-01 8.124e-02 -1.849 0.065705 .

Feature\_91 -2.196e-02 7.384e-02 -0.297 0.766455

Feature\_92 -1.884e-02 7.160e-02 -0.263 0.792692

Feature\_93 7.407e-02 7.771e-02 0.953 0.341434

Feature\_94 -6.102e-02 6.902e-02 -0.884 0.377500

Feature\_95 -1.175e-01 8.796e-02 -1.336 0.182650

Feature\_96 -3.345e-02 8.866e-02 -0.377 0.706284

Feature\_97 8.853e-02 8.808e-02 1.005 0.315810

Feature\_98 1.211e-01 8.716e-02 1.389 0.166056

Feature\_99 -5.104e-02 8.429e-02 -0.605 0.545405

Feature\_100 -1.470e-02 8.276e-02 -0.178 0.859154

Feature\_101 1.039e-01 8.393e-02 1.238 0.216846

Feature\_102 -8.568e-02 8.193e-02 -1.046 0.296701

Feature\_103 6.838e-02 7.190e-02 0.951 0.342528

Feature\_104 1.367e-03 6.893e-02 0.020 0.984195

Feature\_105 -4.319e-02 7.621e-02 -0.567 0.571417

Feature\_106 6.581e-03 7.169e-02 0.092 0.926932

Feature\_107 -7.235e-02 6.949e-02 -1.041 0.298852

Feature\_108 -2.570e-02 7.284e-02 -0.353 0.724556

Feature\_109 -7.946e-02 8.655e-02 -0.918 0.359487

Feature\_110 4.827e-02 6.639e-02 0.727 0.467857

Feature\_111 -1.633e-01 8.033e-02 -2.033 0.043088 \*

Feature\_112 -7.306e-02 8.470e-02 -0.862 0.389254

Feature\_113 -9.313e-02 6.595e-02 -1.412 0.159137

Feature\_114 1.606e-02 8.123e-02 0.198 0.843483

Feature\_115 3.988e-02 6.565e-02 0.607 0.544081

Feature\_116 -6.610e-02 8.222e-02 -0.804 0.422168

Feature\_117 -7.162e-02 7.581e-02 -0.945 0.345706

Feature\_118 -8.649e-03 7.673e-02 -0.113 0.910343

Feature\_119 7.814e-02 8.366e-02 0.934 0.351185

Feature\_120 2.033e-02 7.263e-02 0.280 0.779813

Feature\_121 -7.812e-02 7.082e-02 -1.103 0.271105

Feature\_122 1.347e-02 7.286e-02 0.185 0.853463

Feature\_123 -2.932e-02 7.246e-02 -0.405 0.686052

Feature\_124 2.947e-02 6.409e-02 0.460 0.646025

Feature\_125 1.397e-02 7.168e-02 0.195 0.845660

Feature\_126 9.285e-04 7.817e-02 0.012 0.990532

Feature\_127 -9.180e-03 8.644e-02 -0.106 0.915510

Feature\_128 2.209e-02 6.453e-02 0.342 0.732417

Feature\_129 2.025e-01 8.180e-02 2.476 0.013968 \*

Feature\_130 2.208e-02 6.755e-02 0.327 0.744080

Feature\_131 -8.743e-02 8.114e-02 -1.078 0.282270

Feature\_132 3.312e-02 6.726e-02 0.492 0.622814

Feature\_133 5.106e-02 6.635e-02 0.770 0.442317

Feature\_134 -1.128e-02 8.848e-02 -0.128 0.898645

Feature\_135 -1.129e-02 7.934e-02 -0.142 0.887005

Feature\_136 -1.013e-01 6.845e-02 -1.480 0.140209

Feature\_137 -2.947e-02 7.565e-02 -0.390 0.697177

Feature\_138 6.396e-02 7.417e-02 0.862 0.389337

Feature\_139 -6.106e-02 7.494e-02 -0.815 0.415997

Feature\_140 3.714e-03 7.701e-02 0.048 0.961573

Feature\_141 7.012e-03 7.523e-02 0.093 0.925812

Feature\_142 5.668e-03 7.736e-02 0.073 0.941648

Feature\_143 -2.409e-02 8.425e-02 -0.286 0.775124

Feature\_144 4.214e-02 8.061e-02 0.523 0.601585

Feature\_145 3.946e-02 8.755e-02 0.451 0.652584

Feature\_146 -1.896e-02 7.002e-02 -0.271 0.786794

Feature\_147 -8.566e-02 8.165e-02 -1.049 0.295121

Feature\_148 1.636e-01 7.263e-02 2.253 0.025141 \*

Feature\_149 -7.868e-02 6.602e-02 -1.192 0.234505

Feature\_150 1.334e-01 7.153e-02 1.865 0.063301 .

Feature\_151 -1.532e-02 7.302e-02 -0.210 0.834036

Feature\_152 2.900e-02 8.437e-02 0.344 0.731325

Feature\_153 -3.763e-02 8.144e-02 -0.462 0.644423

Feature\_154 -2.420e-02 7.386e-02 -0.328 0.743503

Feature\_155 -3.861e-02 8.152e-02 -0.474 0.636174

Feature\_156 -1.160e-01 8.009e-02 -1.449 0.148714

Feature\_157 3.556e-02 8.609e-02 0.413 0.679903

Feature\_158 -7.914e-02 8.368e-02 -0.946 0.345231

Feature\_159 1.535e-02 6.958e-02 0.221 0.825568

Feature\_160 3.300e-02 8.620e-02 0.383 0.702180

Feature\_161 -8.594e-02 7.383e-02 -1.164 0.245486

Feature\_162 4.421e-06 6.610e-02 0.000 0.999947

Feature\_163 5.447e-02 7.997e-02 0.681 0.496452

Feature\_164 3.560e-02 7.921e-02 0.449 0.653554

Feature\_165 3.913e-02 8.122e-02 0.482 0.630431

Feature\_166 -4.393e-02 7.466e-02 -0.588 0.556847

Feature\_167 -1.157e-02 8.614e-02 -0.134 0.893279

Feature\_168 5.060e-02 7.129e-02 0.710 0.478477

Feature\_169 -5.961e-02 8.071e-02 -0.739 0.460874

Feature\_170 -2.928e-02 8.995e-02 -0.326 0.745068

Feature\_171 -3.859e-02 7.955e-02 -0.485 0.628058

Feature\_172 -3.180e-02 6.657e-02 -0.478 0.633343

Feature\_173 1.541e-02 7.549e-02 0.204 0.838388

Feature\_174 1.458e-01 6.401e-02 2.278 0.023589 \*

Feature\_175 8.832e-02 6.745e-02 1.309 0.191662

Feature\_176 -9.796e-03 7.300e-02 -0.134 0.893362

Feature\_177 -7.058e-02 7.136e-02 -0.989 0.323596

Feature\_178 3.590e-02 7.180e-02 0.500 0.617494

Feature\_179 -9.053e-03 8.744e-02 -0.104 0.917617

Feature\_180 6.438e-02 7.094e-02 0.908 0.365016

Feature\_181 -7.799e-03 9.772e-02 -0.080 0.936456

Feature\_182 1.074e-01 7.443e-02 1.443 0.150421

Feature\_183 4.732e-03 7.478e-02 0.063 0.949596

Feature\_184 -5.941e-03 6.876e-02 -0.086 0.931220

Feature\_185 -1.802e-02 6.696e-02 -0.269 0.788022

Feature\_186 -2.432e-02 7.366e-02 -0.330 0.741600

Feature\_187 7.015e-02 7.004e-02 1.001 0.317577

Feature\_188 5.087e-02 7.077e-02 0.719 0.472938

Feature\_189 -1.321e-02 7.541e-02 -0.175 0.861111

Feature\_190 2.388e-02 7.433e-02 0.321 0.748252

Feature\_191 1.115e-01 7.555e-02 1.475 0.141408

Feature\_192 1.717e-01 7.804e-02 2.200 0.028760 \*

Feature\_193 7.706e-02 8.008e-02 0.962 0.336880

Feature\_194 -2.076e-02 7.393e-02 -0.281 0.779124

Feature\_195 -1.604e-01 7.783e-02 -2.061 0.040325 \*

Feature\_196 -1.160e-02 9.631e-02 -0.120 0.904262

Feature\_197 4.334e-02 7.820e-02 0.554 0.579923

Feature\_198 7.015e-02 7.832e-02 0.896 0.371335

Feature\_199 7.459e-03 7.113e-02 0.105 0.916568

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.2572 on 247 degrees of freedom

Multiple R-squared: 0.6419, Adjusted R-squared: 0.352

F-statistic: 2.214 on 200 and 247 DF, p-value: 1.702e-09