Day 7 – extra stuff

understanding/interpreting residuals:

<http://docs.statwing.com/interpreting-residual-plots-to-improve-your-regression/>

<https://stattrek.com/regression/residual-analysis.aspx>

<https://newonlinecourses.science.psu.edu/stat501/node/277/>

[log transform nicely explained](https://gerardnico.com/data_mining/stepwise_regression)<https://stats.stackexchange.com/questions/18844/when-and-why-should-you-take-the-log-of-a-distribution-of-numbers>

normalisation

<https://medium.com/@urvashilluniya/why-data-normalization-is-necessary-for-machine-learning-models-681b65a05029>

<https://www.quora.com/What-is-normalization-in-machine-learning>

bootstrapping (quite mathematical)

<https://www.thoughtco.com/what-is-bootstrapping-in-statistics-3126172>

bootstrapping non-mathematical

<https://www.thoughtco.com/what-is-bootstrapping-in-statistics-3126172>

Intro to Polynomial regression:

<https://towardsdatascience.com/introduction-to-linear-regression-and-polynomial-regression-f8adc96f31cb>

Nonlinear regression in R:

[www.sthda.com/english/articles/40-regression-analysis/162-nonlinear-regression-essentials-in-r-polynomial-and-spline-regression-models/](http://www.sthda.com/english/articles/40-regression-analysis/162-nonlinear-regression-essentials-in-r-polynomial-and-spline-regression-models/)

**Datacamp PCA**

[**https://www.datacamp.com/community/tutorials/pca-analysis-r**](https://www.datacamp.com/community/tutorials/pca-analysis-r)

**PCA**

[**https://www.analyticsvidhya.com/blog/2016/03/practical-guide-principal-component-analysis-python/**](https://www.analyticsvidhya.com/blog/2016/03/practical-guide-principal-component-analysis-python/)

**Excellent video on PCA**

[**https://www.youtube.com/watch?v=FgakZw6K1QQ**](https://www.youtube.com/watch?v=FgakZw6K1QQ)

regulatisaton

ridge

<https://www.youtube.com/watch?v=Q81RR3yKn30>

lasso

<https://www.youtube.com/watch?v=NGf0voTMlcs>

gentle intro intro in R

<https://eight2late.wordpress.com/2017/07/11/a-gentle-introduction-to-logistic-regression-and-lasso-regularisation-using-r/>

datacamp on both

<https://www.datacamp.com/community/tutorials/tutorial-ridge-lasso-elastic-net>

how to implement them in R

<http://www.sthda.com/english/articles/37-model-selection-essentials-in-r/153-penalized-regression-essentials-ridge-lasso-elastic-net/>

shrinkage

<https://towardsdatascience.com/a-comparison-of-shrinkage-and-selection-methods-for-linear-regression-ee4dd3a71f16>

<http://www.sthda.com/english/articles/38-regression-model-validation/157-cross-validation-essentials-in-r/>

<http://www.sthda.com/english/articles/38-regression-model-validation/158-regression-model-accuracy-metrics-r-square-aic-bic-cp-and-more/>

<http://www.sthda.com/english/articles/37-model-selection-essentials-in-r/154-stepwise-regression-essentials-in-r/>