STAT 485/685 Lecture 6
Fall 2017
25 September 2017

- I discussed fitted values and residuals.
- Use `lm` to get estimates of the intercept and slope.
- Call these estimate $\hat{\beta}_0, \hat{\beta}_1, \ldots$.
- The fitted values are

$$\hat{\mu}_t = \hat{\beta}_0 + D_{t1}\hat{\beta}_1 + \cdots .$$

- The residuals are

$$\hat{X}_t = Y_t - \hat{\mu}_t$$

- If $Y_t = \mu_t + X_t$ and we have specified μ_t correctly then X_t is a stationary mean 0 series.
- $\hat{X}_t$ is nearly the same series so we analyse it as a time series.
- I showed another example using the `co2` data in `R`.
- The code is here.
- In the text I am doing Chapter 3.3 to 3.6.
- You should be Reading all of Chapters 1, 2, and 3.
- Next class I will continue with `R` code and residuals.
- Handwritten slides.