

Transfer Function Modeling with R

Finn Vaughankraska

2024-05-05

Introduction

In this report, we will demonstrate how to implement a transfer function model in R using the forecast package. Transfer functions model the relationship between an output time series and one or more input time series, accounting for potential lags and other dynamics...

Exploratory Analysis

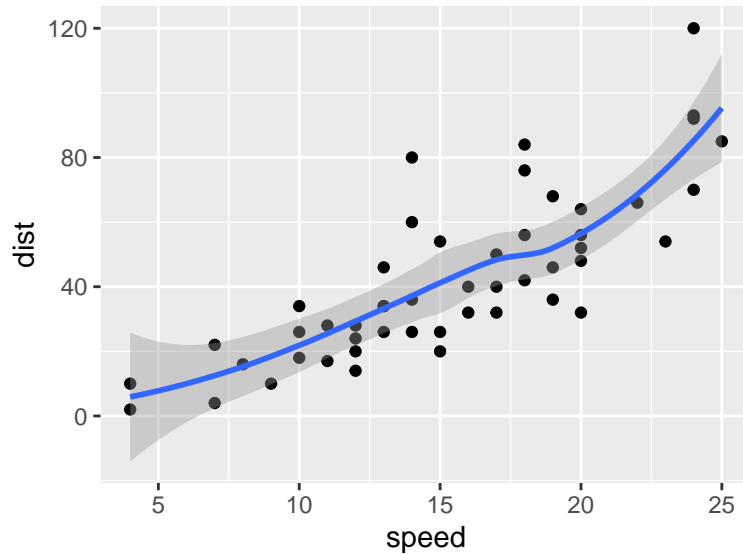
[illegible]

```
summary(cars)
```

```
##           speed           dist
##  Min.      : 4.0    Min.      : 2.00
##  1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##  Mean     :15.4    Mean      : 42.98
##  3rd Qu.:19.0    3rd Qu.: 56.00
##  Max.      :25.0    Max.      :120.00
```

```
qplot(speed, dist, data=cars) + geom_smooth()
```

```
## Warning: 'qplot()' was deprecated in ggplot2 3.4.0.  
## This warning is displayed once every 8 hours.  
## Call 'lifecycle::last_lifecycle_warnings()' to see where this warning was  
## generated.
```



lorem ipsum.lorem ipsum.lorem ip-
 sum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem
 ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem
 ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.lorem ipsum.

Baseline Model

Model Implementing Transfer Functions

Results and Comparisons

Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful.

Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful.

Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful. Here are some key results that might be very insightful.

Conclusion

lorem ipsum