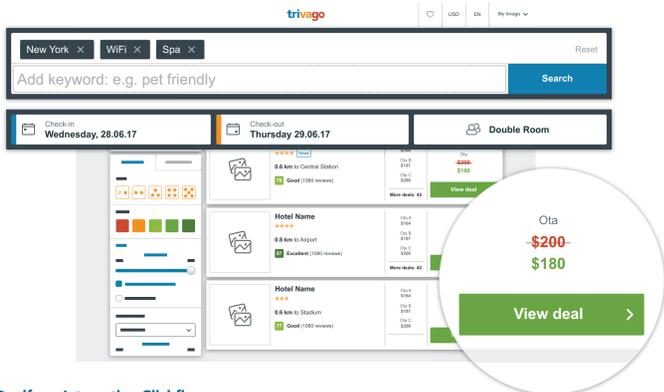


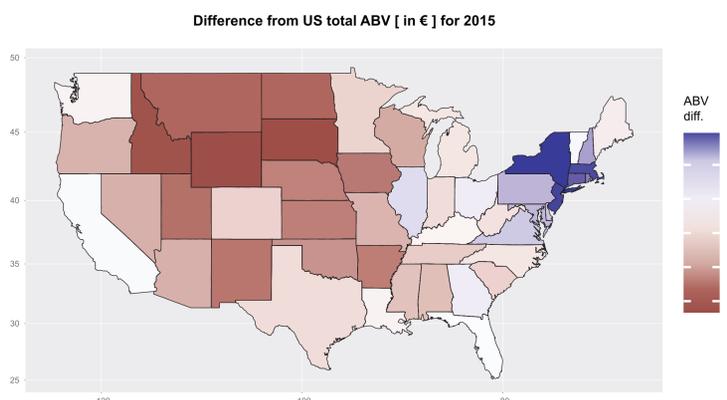
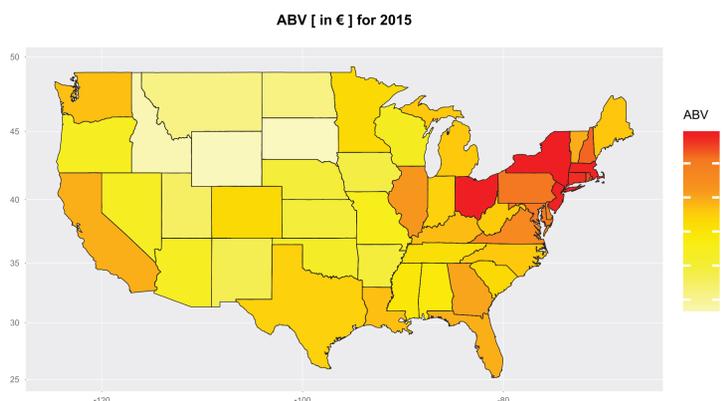
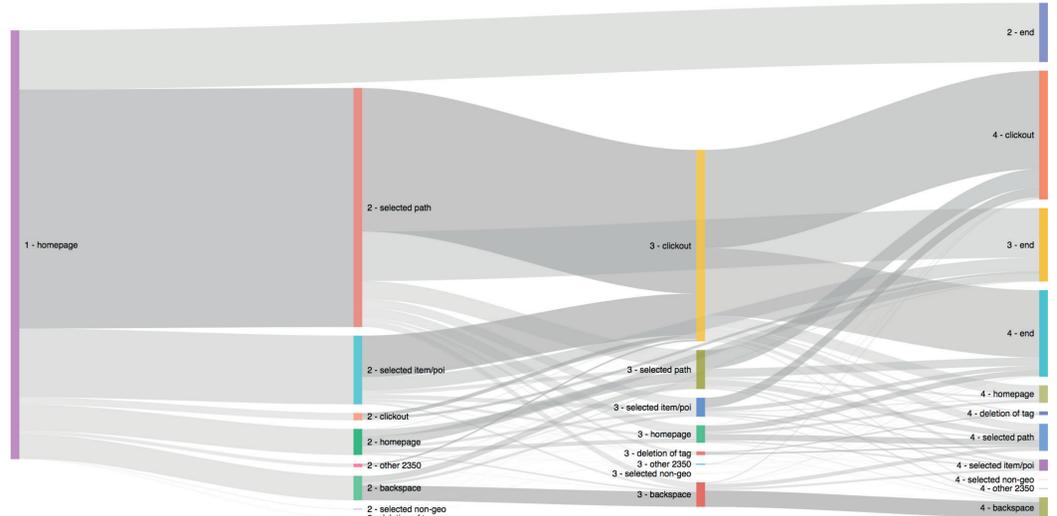
# Applications of R in a Big Data company



## Dealform Interaction Clickflow

The sankey chart provides a general understanding of the user behavior specifically for the trivago search bar. Each vertical line represents one interaction step of the user. Starting from our homepage the user can choose different search contexts, for instance selecting a destination and performing a clickout afterwards or refining the search in order to find the ideal hotel.

**R packages:** shiny, googleVis



## Average Booking Value (ABV) per state in the US

The upper map shows how the average value of a booking depends on the location of the user. The bottom map depicts the difference of the average booking value of each state when compared to the national ABV.

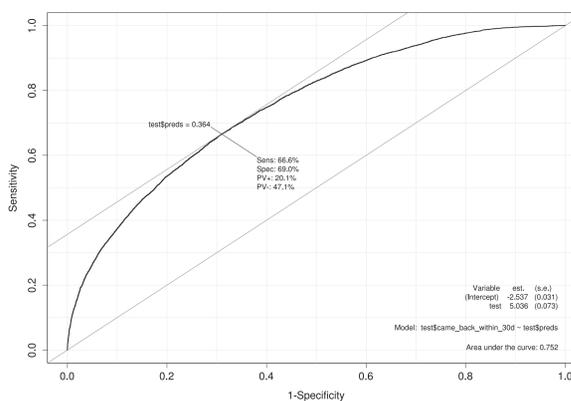
**R packages:** maps, gridExtra, ggplot2



## Sherlock Anomaly detection

- Monitors a broad range of Data and Metrics 3x daily
- Notifies relevant person when values fall outside a dynamic expected range.
- Anomalies shown in a table and classified by severity
- Each anomaly can be shown in the time series

**R packages:** shiny, googleVis, RSQLite, assertthat, impaler, methods, tidyr



## Receiver Operating Characteristic (ROC) curve for user return predictions

We made a prediction of the likelihood that a user might return to our website in the future using a Boosted Regression Trees (BRT) prediction model. This chart shows a ROC curve for the specificity & sensitivity of different cut-off values for the return probabilities. It shows how the False Positive Rate (1 - Specificity) increases with the True Positive Rate (Sensitivity) when lower cut-off values are chosen.

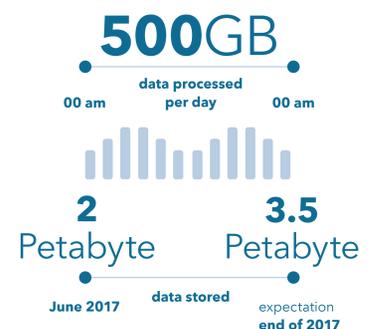
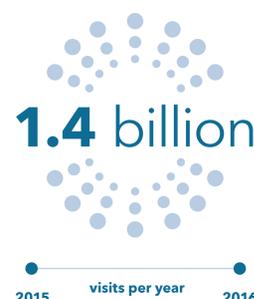
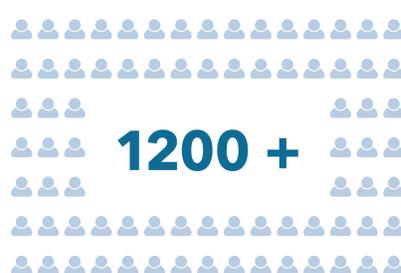
**R packages:** Rimpala, dplyr, rimpaladb, rpivotTable, gbm, dismo, ICEbox, Epi, SDMTTools

## trivago Facts

### Hotels



### Employees



July 5th  
6:30 pm  
UserR! 2017  
Conference  
Brussels (BE)

### team members

Alex Doplin, Data Analyst  
Michael Frings, Data Analyst  
Peter Brejcek, Happy Data Analyst making crawlers sad  
Toni Linnenbruegger, Data Analyst

Crazy about data? [company.trivago.com/jobs](http://company.trivago.com/jobs)