**Data Analysis 2 -Finding Patters with Regressions**

**Assignment 1**

**Made by:** Benedek Pásztor

**CEU ID:** 149272

**Degree:** MS in Business Analytics

**Department:** Department of Economics and Business



Central European University

Budapest, 12th November, 2018

# Filter the data to the city of your choice and other characteristics (stars, accomodation type)

# *Describe the distribution of the price and distance variables. Comment on graphs.*

# *Sample definition: You may or may not want to drop some observations; make a choice and argue for it*

# *Create a binary variable of distance (below/above cutoff of your choice) and regress price on this binary variable. Report, interpret and visualize the results.*

# *Estimate a lowess nonparametric regression of price on distance. Report, interpret and visualize the results.*

# *Estimate a simple linear regression of price on distance. Report, interpret and visualize the results.*

# Estimate a linear regression of price on distance that captures potential nonlinearities (polynomials, splies). Report, interpret and visualize the results.

# Discuss your overall findings.