**Workshop: real-estate price estimation**

Real-estate price estimation models are being used by government, banks and investors to develop loans plans, housing establishments programs, taxes and infrastructure projects. The data set provided by the Sberbank consist of continuous and categorical data sources such as macro indicators and housing features, which will be used to estimate real-estate prices.

**Dataset:** Kaggle, Sberbank Russian Housing Market

**Content:**

1. Introduction to real estate price estimation
2. Understanding the algorithms
3. Exploratory analysis of the dataset
4. Imputations & Features engineering
5. Main algorithms usage: XGBoost, LightGBM etc.
6. Result comparison
7. Useful resources
8. Questions

**Key takeaways:**

1. During the workshop a complete example of one model will be presented, the second model and result comparison will be completed during the workshop, thus we will learn by practice;
2. Learning from top-bottom approach is useful, however understanding the basics is also important, therefore the algorithms will be explained in more detail;
3. Forecasting algorithms requires using additional explanation variables – useful resources for such purpose will be presented during the workshop.

**Lecturers:**

Valentas Gružauskas, KTU PhD student in operation research in logistics specializing in agent-based modelling and machine learning.

Andrius Kriščiūnas, KTU Informatics faculty lecturer & researcher specializing in optimization and approximation techniques.

Location: KTU Santaka Valley, K. Baršausko 59, A225

Date: March 13, 2019

Time: 19:00 - 22:00

Maximum number of participants: 25

**Organizers**

**PyData** is an educational program of NumFOCUS, a nonprofit charity promoting the use of accessible and reproducible computing in science and technology.