**AMLT ITMO 2023**

**Task #2**

1. Select the dataset and the ML problem (it is possible to select your old tasks from ML course or other courses implying ML/DL models).

2. Train the model.

3. Analyze the feature importance in your data for making predictions by your model using eli5/SHAP/LIME frameworks:

[https://eli5.readthedocs.io/en/latest/overview.html#installation](https://eli5.readthedocs.io/en/latest/overview.html" \l "installation)

<https://github.com/slundberg/shap>

<https://github.com/marcotcr/lime>

Calculate permutation importance, SHAP values (for a specific prediction, for data sampling), analyze predictions with LIME; plot PDPs and other visualizations you like.

4. Analyze all the graphs/tables and **write conclusions** about your data, model and features.

5. Complete a task in a single Jupyter Notebook.