

Advanced Data Science tools in Microsoft Fabric

The training presents the latest capabilities of the Microsoft Fabric platform, focusing on the practical use of Data Science tools. Participants learn key features that support data analysis, machine learning model development, and the integration of Cognitive Services, enabling the creation of modern, intelligent analytical solutions.



Training recipients

The training is intended for:

- Data Scientists who want to use the Microsoft Fabric ecosystem in their daily work,
- data analysts looking for tools to automate and improve analytical processes,
- data engineers working with large datasets in the cloud,
- AI and ML specialists who want to integrate models with Cognitive Services,
- individuals developing competencies in building responsible and interpretable predictive models (including with FairLearn).



Benefits

- Microsoft Fabric in Data Science – you will discover how to use the platform to build complete end-to-end analytical processes.
- Data quality assessment with SynapseML – you will learn how to analyze data and identify issues that affect models.
- Data Wrangler – you will learn how to efficiently prepare data for modeling using tools built into Fabric.
- MLflow and model registration – you will see how to monitor experiments and manage the model lifecycle.
- Cognitive Services – you will learn how to enrich projects with abilities similar to human skills: text

understanding, image analysis, and speech processing.



Training program

1. Introduction to Microsoft Fabric
2. Introduction to Azure Cognitive Services
3. Data science projects on Fabric platform
4. Data evaluation with SynapseML library
5. Data preparation for modelling
6. Logging experiments with MIFlow library
7. Registering models
8. Predictive queries and model deployment
9. Natural language processing with Cognitive Service
10. Speech processing with Cognitive Services
11. Image processing with Cognitive Services



Expected preparation of the participant

Python knowledge. Acquaintance with Machine Learning algorithms (completing Machine Learning course with the use of Azure Machine Learning Service graphic tools).

The training is mainly addressed to developers.

Attention – If you associate random forests with exotic holiday, and multiple cross validation with unpleasant orthodontic surgery, first of all we encourage you to participate in the training "Machine Learning with Azure Machine Learning Service graphic tools". As part of the course, individual ML projects stages, popular Machine Learning algorithms and methods of evaluating predictive models.

To increase the comfort of work and training's effectiveness we suggest using an additional monitor. The lack of additional monitor does not exclude participation in the training, however, it significantly influences the comfort of work during classes.

You can find information and requirements of participation in Distance Learning trainings at:

<https://www.altkomakademia.pl/en/how-it-works/about-courses/>



Training Includes

- manual in electronic form available on the platform: <https://www.altkomakademia.pl/>
- access to Altkom Akademia's student portal

Training method:

Lecture + exercises



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Language

- **Training:** English
- **Materials:** English