

# No code lab

## Home Assignment

Your summer school assignment is to conceptualize a potential experiment or small-scale research project relevant to your discipline that leverages techniques of Artificial Intelligence (AI) and Machine Learning (ML) discussed during our sessions. This assignment will help you think critically about how to apply these advanced techniques to your specific research interests and how to effectively communicate your research ideas in a manner suitable for submission to a funding agency.

### Assignment Requirements:

- *goal of the research*: Clearly state the objective of your experiment or project. What do you aim to discover or accomplish?
- *description of required data*: Specify the type of data necessary for your research. This should include details like the source, format, and any specific attributes required.
- *characterization of the data*: Provide a characterization of the data. If applicable, include descriptions such as data volume, completeness, reliability, and any preprocessing steps that might be needed.
- *data annotation (if needed)*: If your project involves annotated data, describe how the data should be labeled and the criteria for the annotation.
- *research hypothesis*: Formulate a clear and testable hypothesis that your research aims to investigate or validate.
- *ideation of the experiment*: Outline your experimental design or research methodology. Explain how you will apply the AI and ML techniques covered in the summer school to achieve your research goals. Discuss the implementation approach, evaluation metrics, and any potential challenges you anticipate.

Your task is to draft this as a concise research proposal suitable for submission to a funding agency. Ensure that your proposal is clear, focused, and demonstrates the feasibility and significance of your research project. Your essay should not exceed one A4 page. This assignment is an opportunity to hone your proposal writing skills and to critically evaluate how AI and ML techniques can be leveraged in your field of study. We look forward to reading your innovative research ideas. Put your assignment into a \*.pdf document and send it directly to [Mikolaj.Morzy@put.poznan.pl](mailto:Mikolaj.Morzy@put.poznan.pl) The deadline is September 30, 2024.