

# AI-assisted Engineering Canvas

Designed by:

Date:

Version:

## Data curation



What kind of data cleaning must be performed?

How can the data be annotated?

Which subsets are used for training and validation?

Which examples are critical?

Which attributes / features are important?

## Problem Classes



Which tasks have to be solved by the ML algorithm?

What are the key quantitative metrics for each task?

How can each task be qualitatively judged by the domain experts?

## User Interaction



How does the user interact with the data-driven assistance?

What are the key steps?

How can the performance of the interaction be measured (KPIs)?

## Operations



Which regulations apply to the solution?

Which internal guidelines apply to the solution?

Which metrics have to be monitored?

Where can data drift occur?

When is a re-training necessary?

What kind of maintenance is needed for the infrastructure and integration layer?

## Methods



Which ML methods can be used?

What are possible training strategies?

Which type of normalization is optimal?

Which hyperparameters are optimal?

## Value Propositions



What is the benefit for the business process?

What type of benefit is realized (time saving, quality enhancement, cost saving...)?

Where is the benefit realized (concept phase, design, production planning, production monitoring, maintenance...)?

How can the business value be measured (KPIs)?

## Integration



How does the solution integrate into the current workflow?

How does it integrate into the application layer?

How does it integrate into the infrastructure?

## Data Sources



Which raw data sources are available?

Which data formats are important?

How is the data stored, how can it be accessed?

Can the data be enriched by classical methods?

## Resources



Amount of internal resources?

Budget for software licenses?

Budget for external partners?

Infrastructure cost for setup and maintenance?

Maintenance effort for solution?



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