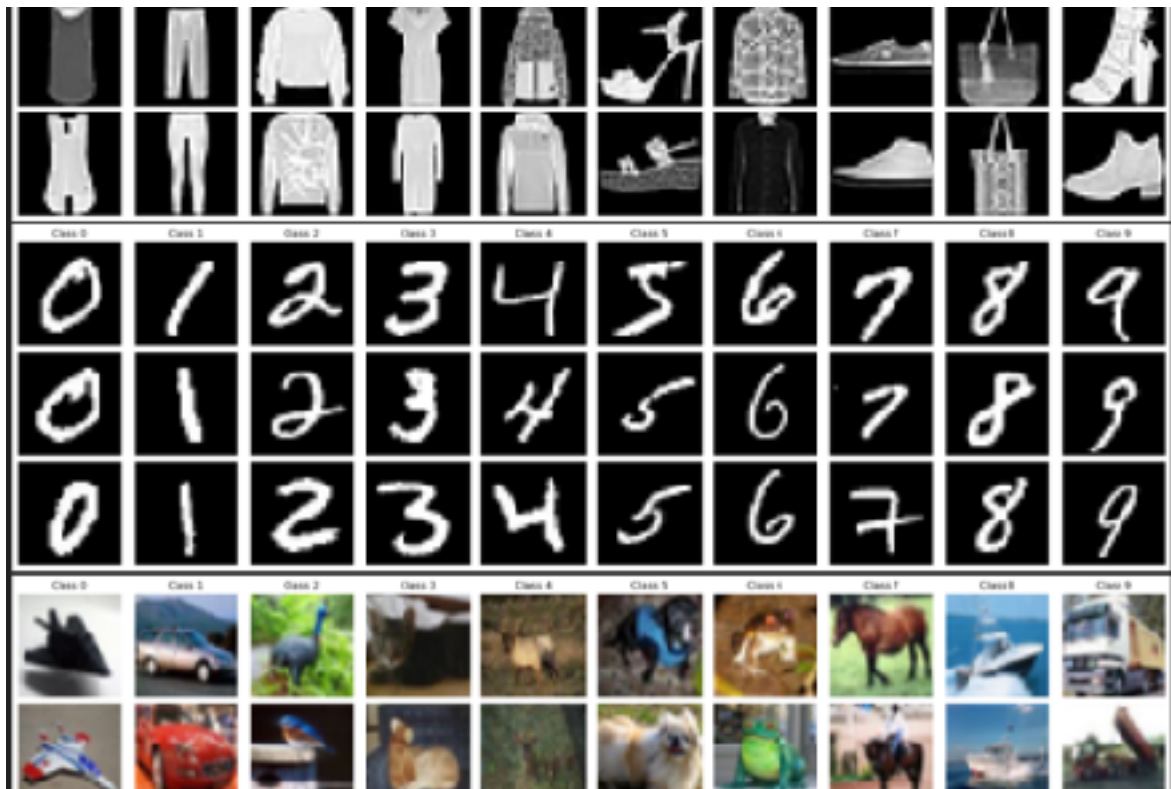# Thesis Report

Generative Data Augmentation using Multi-Agent Diverse Generative Adversarial Networks

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WS24/25 - SS25

Supervision by
Prof. Dr.-Ing. Johannes Maucher & Prof. Dr.-Ing. Oliver Kretzschmar

How to read the document:

The report is merely summarizing the most important achievements, given the current phase. Each report has its dedicated page and is lead by an image of the project plan. The red dot in the project plan shows the current point in time.

The project plan itself is separated into four phases.

1. Main implementation & Literature Research
2. Experimenting
3. Drafting & Writing
4. Finalization

A reports heading will be suffixed by its current phase. Overlapping phases will be listed and explained, if mandatory.

Markers:

+ (Positive)	A point that welt well worked generally or can continue as planned.
- (Negative)	A point that does not hold true to its set timing, is not working a planned or must be left out of the initial plan.
# (Neutral)	Things to note. Adding further information to points above or adding general information that is noteworthy.

Report 2024.12.20 - Phase 1 - Implementation
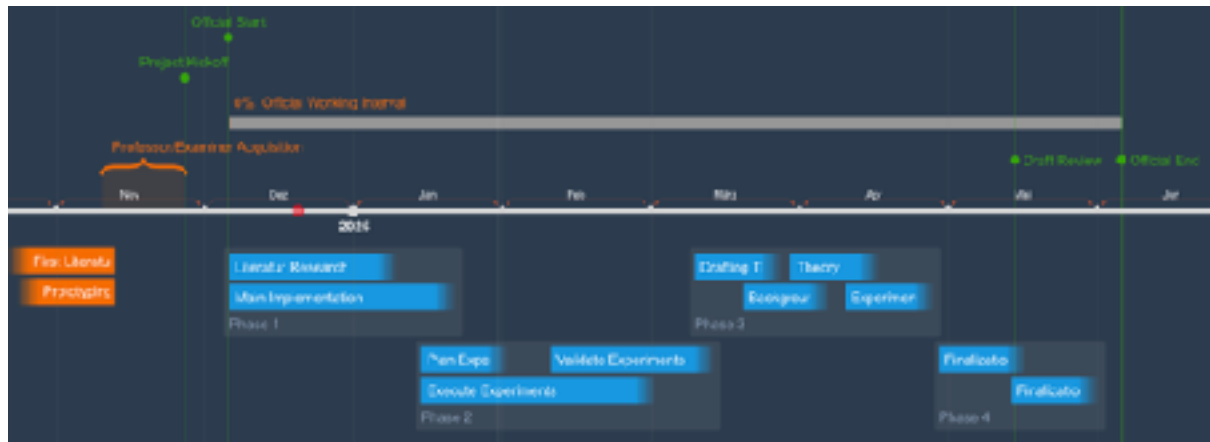
+ **Implementation is going very well**
  # The prototype has been expanded to a production like setup to support experiments in the future. Test-wise, experiments are already running to ensure full functionality with end-to-end testing.
  # repository: https://github.com/N10100010/mad_gan_thesis
+ **Set up working environment on the HdM Servers of the IAAI**
  - The setup was not straight forward and cost nearly 2 days to reliably spin-up a working `conda environment`.
- **Implementation of conditionality constraint worked**
  # Changing the objective functions altered the main research question, thus the adjustment will be omitted going forward.
Main literature research is scheduled for beginning of January