



Personal Development Report

Evaluation 1

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Contents

1	Introduction	3
2	Learning outcome 1 - Societal impact	3
2.1	First evaluation	3
2.2	Second evaluation	4
2.3	Third evaluation	4
2.4	Final evaluation	4
3	Learning outcome 2 - Investigative problem solving	4
3.1	First evaluation	4
3.2	Second evaluation	4
3.3	Third evaluation	4
3.4	Final evaluation	4
4	Learning outcome 3 - Data preparation	4
4.1	First evaluation	5
4.2	Second evaluation	5
4.3	Third evaluation	5
4.4	Final evaluation	5
5	Learning outcome 4 - Machine teaching	5
5.1	First evaluation	5
5.2	Second evaluation	6
5.3	Third evaluation	6
5.4	Final evaluation	6
6	Learning outcome 5 - Data visualisation	6
6.1	First evaluation	6
7	Learning outcome 6 - Reporting	6
7.1	First evaluation	7
7.2	Second evaluation	7
7.3	Third evaluation	7
7.4	Final evaluation	7
8	Learning outcome 7 - Personal Leadership	7
8.1	First evaluation	7
8.2	Second evaluation	8
8.3	Third evaluation	8
8.4	Final evaluation	8

9	Learning outcome 8 - Personal goal	8
9.1	First evaluation	8
9.2	Second evaluation	8
9.3	Third evaluation	8
9.4	Final evaluaton	8
10	Retrospect	8
11	Conclusion	8
12	Appendix	8

1 Introduction

My name is Danil Burov and I am studying Information Technology in Fontys, Venlo. I am specializing in Embedded Software back in Venlo and the reason I chose this minor is because I think that AI is a very ongoing topic and I wanted to get more familiar with it. Especially because I think that AI has a big implication when it comes down to IoT devices.

2 Learning outcome 1 - Societal impact

Description

The student is able to approach the context and impact of their own AI project(s) from different perspectives in a sustainable way. In addition, the student is able to reflect on their own choices, taking into account data legislation and the (possible) impact on society.

Explanation:

Societal impact is one of the most important contextual parts of the project. Every time a person starts a project an evaluation on the societal impact should be done in order to understand 'Why?' a project is being done on the given topic.

2.1 First evaluation

During the first weeks of the minor I had the opportunity to think about the societal impact of the projects I will be working on. Since the beginning I had an idea of what my personal project could look like. However, I was not that aware what could be the societal impact of my project. With the help of the technical coach 'Jacco'.

To see the feedpulse checkpoint regarding this evaluation go to Figure 1.

Self assesment: Orientating

2.2 Second evaluation

2.3 Third evaluation

2.4 Final evaluation

3 Learning outcome 2 - Investigative problem solving

Description

The student is able to critically look at their own AI project(s) from different perspectives, recognize problems and come up with appropriate solutions.

Explanation:

From this learning outcome I will further develop my investigative and problem solving skills regarding how AI is used in the project, is it doing as intended and if not how to approach the problem and solve it eventually.

3.1 First evaluation

During the first weeks I had to tackle several problems. In the beginning the course was presented with some stakeholders who presented to us what issues they have with their companies and what they would like to add to their business. I was given the opportunity to think of an idea that solves a business case and so I created a project proposal for one of the companies that visited us. The proposal is based on the problem that the company has.

To see the full proposal go to this link: [project proposal](#)

Self assessment: Orientating

3.2 Second evaluation

3.3 Third evaluation

3.4 Final evaluation

4 Learning outcome 3 - Data preparation

Description

The student is able to collect data and estimate its quality and usability. The student is also able to adjust the data if necessary for proper usage in their project(s).

Explanation:

In order to create any AI model I will need a good, clean dataset that can be used to properly teach a machine. To do so I intend to first of all use a reliable source for the set and clean inspect it carefully before using.

4.1 First evaluation

The first thing that was done regarding this learning outcome was to select a dataset suitable for the intended usage of the AI model. For the personal project I have selected this dataset. I have been working on a cleaned version of this dataset. Since this dataset does have some empty fields I tried already cleaning some of the data to prepare it for the upcoming modelling. Regarding the data preparation for the project I have already started analyzing the data for the organization we are doing the project for, however it is still in a very early stage.

Self assesment: Orientating**4.2 Second evaluation****4.3 Third evaluation****4.4 Final evaluaton****5 Learning outcome 4 - Machine teaching****Description**

The student is able to use data to train models in a way that fits the intended purpose. The student is also able to test whether the models have been adequately trained.

Explanation:

After making sure that the dataset that will be used to teach a machine is not corrupted, outdated and etc., I need to ensure that the machine is doing as intended with the dataset. In order to ensure quality, testing the machine teaching is ideal.

5.1 First evaluation

In the first weeks of the minor I explored a website called 'Teachable Machine' in order to get familiar with the steps of creating an AI model. The usage of

my model was to recognize cats and dogs. The usage of the model can be seen here 2. Other than using the website to get familiar with machine learning I have tried to familiarize myself with different machine learning algorithms, such as Decision Trees, Random Forest, etc.

5.2 Second evaluation

5.3 Third evaluation

5.4 Final evaluation

Self assesment: Orientating

6 Learning outcome 5 - Data visualisation

Description

The student is able to use data to create an interesting, informative and compelling story in an (interactive) data visualization product, tailored to the right target group.

Explanation:

Visualizing data will help further understand the relation between different features. In order to achieve this goal, every correlations that are found between different features need to be visualized. These images need to be understandable and self expainatory.

6.1 First evaluation

I have not yet done anything related with data visualization. I have only educated myself with the provided python tutorials and self learning.

Self assesment: Orientating

6.2 Second evaluation

6.3 Third evaluation

6.4 Final evaluation

7 Learning outcome 6 - Reporting

Description

The student is able to report in a methodologically sound manner on (the outcome of) own AI projects (project proposal, process documentation, reporting of final results, etc.).

Explanation:

Make sure that documents are written in time and feedback is used to prove the legitimacy of the given goal. The goal would be considered accomplished if all documents are consistent and comprehensible. It is very important that the code documentation is easy to understand and use.

It is very important that I document the progress I make in order to keep track of how I have improved during the minor. To do so I have created my own personal repository which I already have put all the documents I have written up until now. As well as all the exercises I have completed for the past 4 weeks.

7.1 First evaluation**Self assesment: Beginning****7.2 Second evaluation****7.3 Third evaluation****7.4 Final evaluaton****8 Learning outcome 7 - Personal Leadership****Description**

The student shows an entrepreneurial mindset regarding their own AI project(s) and personal development, while being aware of their own learning capacity and keeping in mind professional ambitions in their future work field.

Explanation:

The outcome of this learning goal should be that I manage my time correctly without overloading myself. That means following some kind of a schedule, as well as attending lectures to ensure that I stay in track and seeking feedback to make sure I am progressing.

8.1 First evaluation

Ever since the minor started I have attended all lectures regarding the minor and I have taken some things that will help me further develop my skills in AI modelling. I still need to improve on asking more feedback from lectures.

Self assesment: Orientating

8.2 Second evaluation

8.3 Third evaluation

8.4 Final evaluation

9 Learning outcome 8 - Personal goal

Description

With this learning outcome, the student can set its own goal in relation to their future field of work. This is always related to your Individual Challenge. Describe this Learning Outcome in your PDR.

Explanation:

My personal goal for this minor is to get very familiar with how to create an AI model, be able to analyze large amount of data and prepare this data for further training a given model. I would like to get more familiar with how the machine learning algorithms work and be able to choose the appropriate algorithm for the use case.

9.1 First evaluation

In the first 4 weeks I have managed to choose a dataset for my own personal project that fits the needs I have, I have attended all lectures to make sure I progress in my knowledge for AI technically and ethically. I have managed to import the dataset and clean it based on a condition.

Self assesment: Orientating

9.2 Second evaluation

9.3 Third evaluation

9.4 Final evaluation

10 Retrospect

11 Conclusion

12 Appendix

Checkpoint 1 Jacco week 4 24-05 🙄 😊 😄



Burov, Danil D.P. a day ago

I gave an overview of what my personal project idea. But I had an issue finding out how my project could have any societal impact. Jacco gave me an interesting solution to look into. My personal project idea is to create an prediction model based on fighter statistics. The societal impact that was proposed to me was to involve an analytical tool that analyzes why the fighter lost to the fighter and give the fighter tips on what he/she should improve to get better.



Write a summary of what you discussed with your teacher...

Post feedback

Figure 1: Feedback checkpoint for societal impact

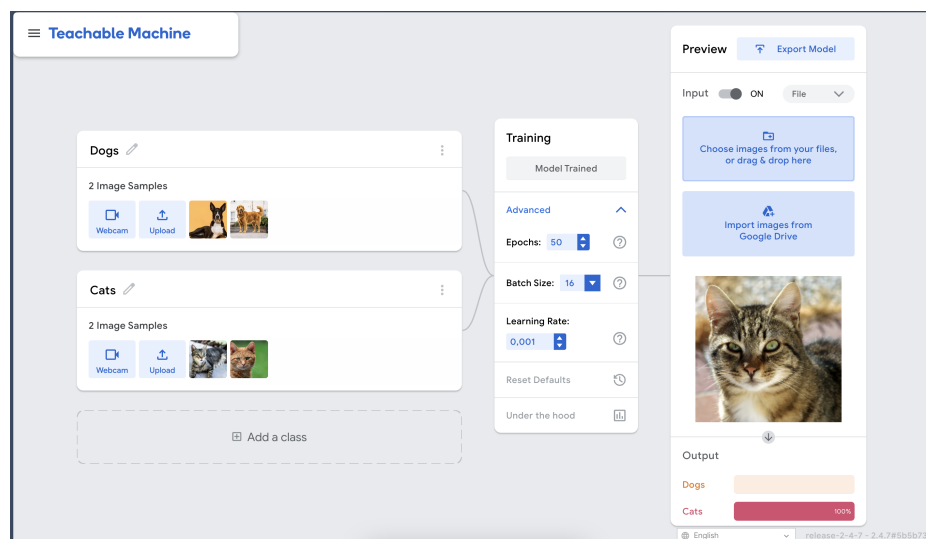


Figure 2: Usage of AI model in Teachable Machine website