

# Personal Development Report

Thomas van der Molen  
S4-AI41



Project Information	
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## Version History

Version	Date	Change
1.0	15-02-2022	Created document
1.1	15-03-2022	Added a personal Introduction
1.2	13-04-2022	Added Evidence gathered from feedback from iteration 0 and partially iteration 1
1.3	19-04-2022	Updated structure and learning outcomes after feedback Evaluation 2
1.4	19-04-2022	Fixed inconsistent fonts
1.5	10-05-2022	Added my grading goal to Introduction
1.6	11-05-2022	Added evidence for evaluation 3
1.7	12-05-2022	Added final feedback from Frank for evaluation 3

## Introduction

My name is Thomas van der Molen, I am 19 years old and have previously done Mavo and Havo before coming to Fontys to study HBO ICT & Software Engineering. While I have always been interested in IT, I did not have a background in software before coming to Fontys. During high school I took an IT class, but this did not give me any extra knowledge in the field of software engineering that I had not learned before from myself.

I have chosen to do a specialization in AI because I am very interested in the subject and think it would round out my software background nicely.

I think there is a future in the AI sector and am very interested in where this area might go in the future. I also want to learn more on the process of creating a model and training it, because I think the algorithms used are very interesting.

Because I already have a background in software, I assume that the machine learning part will come easier to me and for this I also want to spend a lot of time on data preparation because I think that I could learn a lot in this part of AI.

As for what I want to achieve this semester, seen as my previous semesters, I have been able to finish with an outstanding grading I will be trying to get outstanding again this semester.

However, I do understand that this semester will be very different from the last, and if I am not able to get an outstanding grading, I will be fine with satisfactory as well.



## Data Preparation

You can **enrich/extend** and **clean** datasets and are able to investigate and argument the use of **data storing methods**.

*Evaluation 2: I think this learning outcome is currently at an **Orienting** level, maybe even Beginning.*

*Evaluation 3: I think this learning outcome is currently at a **Proficient** level.*

### Evidence Evaluation 2

Thank you for your submission! I think you did a good job, [very extensive data analysis](#). I would expect that for such big research you would have a bit longer conclusion. Also, I think what will help you is to write down some subquestions

Pencheva, Sabina S., 15 Mar at 10:15

From the quote above gotten from my Iteration 0 delivery on canvas by Sabina, she mentions that I did very extensive and well-done data analysis. She had no direct comments or changes that had to be made to this part of my iteration, only having improvement feedback on my research components for the analytic approach and reporting.

This feedback was very positive and showed that I am on the right track with my data preparation and EDA.

### Evidence Evaluation 3

[Very good provisioning phase. You demonstrated good understanding of your data.](#) I really like the fact that you are very descriptive in your steps. Good job!

Pencheva, Sabina S., 1 May at 20:14

The feedback given above, was from Sabina based on my provisioning phase for iteration 1 and 2. During these two iterations I learned a lot, and especially during iteration 2 I significantly improve in my ability to investigate and give valid arguments for my data.

During iteration 2 I also improved my data gathering method to avoid previously found issues, these issues proved to not be as easy so solve as expected and taught me a lot about how to properly store and clean data.

Because of my significant improvements in my abilities to investigate and prepare data, an the generally positive feedback from Sabina, I think this learning outcome is on a proficient level.

## Data analysis & model engineering

You can **train** different types of models and tune the **hyper-parameters** of these models. Furthermore, you can **evaluate** the results from a trained model and can use **other data analysis techniques**.

*Evaluation 2: I think this learning outcome is currently at an **Orienting** level, possibly closing in on Beginning.*

*Evaluation 3: I think this learning outcome is currently at a **Proficient** level.*

### Evidence Evaluation 2

Hi Thomas a few things to note: First off, I believe you went a little beyond the idea of the "iteration zero" and sort of included and iteration one" as well with the RANSAC. Which is ok, because there is still enough time for further iterations. I like that you reason on what the results are and why they are the way they are, so that is good! 🎉 For me this challenge is a GO

Michielsen, Bas B.S.H.T., 15 Mar at 16:37

The above text is a snippet taken from feedback received on my Iteration 0 by Bas, he goes on to discuss possible food for thought which I dove deeper into during Iteration 1.

Bas mentions that I might have done a little too much for the scope of Iteration 0. However, Bas went on to explain that he thinks I did good research and had given valid reasoning for my results during the modelling phase.

I think this feedback was very positive combined with giving good future points of interest for further iterations and Bas also directly gave me a GO on this challenge, indicating that I have shown clear potential with my project.

### Evidence Evaluation 3

Please note that I am possible in general about your work, you demonstrate an excellent level of subject comprehension but we do AI not because we can, but to "address a case", you seem to have changed it into a hobby to run models and fiddle with the hyperparameters and the goal has become sort of secondary.

Michielsen, Bas B.S.H.T., 26 Apr at 17:34

This snippet of feedback is taken from feedback given by Bas on my machine learning iteration 1 work. Bas gave a lot of feedback on mistakes that I made during this iteration, but as seen above did end it by saying that while I made plenty of mistakes with the way I approached my work, I do demonstrate a good level of knowledge on the subject.

Because of the feedback received from Bas I ended up having an extra one on one meeting to discuss my work and where I went wrong, seen as I do show my ability to work with models, but did not properly show it in correlation to the domain.

Hi Thomas, well done, I am not worried about your work in general, see if you can get your case oriented focus back and I believe the next iteration will be really good!

Michielsen, Bas B.S.H.T., 28 Apr – Feedpulse

During the meeting we discussed what I did wrong and ended up posting what we discussed on feedpulse, Bas also gave a response to my comment and wrote the above.

This response further indicates that while I do show a sufficient level of comprehension of the subject, I failed to apply it back to the domain I am working in and will improve on this during iteration 2.

Hi Thomas, it is clear to me that you are a very [capable student / applied researcher](#) and have also a way of explaining what you are doing such that the story is interesting to follow. [I made a comment about you missing the point and you seem to have quickly recovered from that](#). You feel no "problem" stating that previous reasoning was flawed and now want to have another shot. Even though you are occasionally verbose, I never dislike reading your work. You have a sharp eye for the differences in details and you do not jump to conclusions and leave questions as they are.

Michielsen, Bas B.S.H.T., 10 May at 16:15

As written in the feedback from Bas above, I seem to have improved on the mistakes during iteration 1 in iteration 2. This chain of positive feedback I think proves that I am on a proficient level for this learning outcome.

## Reliability and transparency

You support conclusions based on **domain knowledge** and **sources**, and processes used should be **well explained** and make sense.

*Evaluation 2: I think this learning outcome is currently at a **Beginning** level.*

*Evaluation 3: I think this learning outcome is currently at a **Proficient** level.*

### Evidence Evaluation 2

Hey Thomas, [It seems you sufficiently dove into the domain of movies](#). Could be a little more extensive, and too bad you can't find an expert, but maybe you could then add some "literary source"(?) (<-maybe a piece about what makes the "world of movies" tick?) to use as an expert? If you can't really find that, don't put too much more time in that and go on with EDA-ing. Good start so far!

Bloks, Danny D., 8 Mar at 14:12

As we discussed recently, [in this way the Proposal Phase seems sufficiently displayed in this document and your process](#). So good job. For the Provisioning Phase you should ask Sabina. Good luck!

Bloks, Danny D., 5 Apr at 14:36

From the feedback above received by Danny for Iteration 0 and 1 respectively, Danny states that I have sufficiently displayed my domain understanding and process. I have also taken Danny's earlier feedback into consideration and improved on these aspects mentioned during iteration 1.

### Evidence Evaluation 3

Firstly we discussed Reliability and Transparency, here Danny referred back to my overall grading for Domain Understanding, and mentioned that what I have done so far is good on this front, if I continue documenting and using valid sources for my Delivery phase I [should be at a Proficient level](#).

Meeting Thomas - Bloks, Danny D., 22 Apr – Feedpulse

The feedback above was paraphrased by me during a meeting with Danny discussing my learning outcomes. During this meeting Danny mentioned that my skills for Reliability and transparency are on a high level and did not have anything to improve.

Danny mentioned that if I did the same work I had done so far for my delivery phase, that all my SI phases would be at sufficient. After finishing iteration 2 and handing it in together with my delivery phase, Danny indeed did give me sufficient for all phases indicating that I indeed have a proficient level for this learning outcome.

Hi Thomas, it is clear to me that [you are a very capable student / applied researcher](#) and have also a way of explaining what you are doing such that the story is interesting to follow. I made a comment about you missing the point and you seem to have quickly recovered from that. You feel no "problem" stating that previous reasoning was flawed and now want to have another shot. Even though you are occasionally verbose, I never dislike reading your work. You have a sharp eye for the differences in details and [you do not jump to conclusions](#) and leave questions as they are.

Michielsen, Bas B.S.H.T., 10 May at 16:15

The feedback given by Bas I think applies perfectly to my previous evidence and does indeed show my understanding of basing conclusion on domain knowledge and sources.

## Targeted interactions

You can **clearly communicate** with readers/audience, keeping into **consideration** the knowledge of set audience and the medium used to communicate information.

Evaluation 2: I think this learning outcome is currently at an **Undefined** level, this is because I do not have any direct evidence to show this learning outcome and will be gathered for next evaluation.

Evaluation 3: I think this learning outcome is currently at a **Proficient**.

### Evidence Evaluation 3

After discussing this learning outcome during Evaluation 2, I found that I do have evidence for this learning outcome, some of these have been posted below.

For Targeted Interactions, Danny also mentioned that [this learning outcome is mostly displayed during phase 4](#), however during phase 1 I have done plenty of research and shown my understanding into the stakeholders involved with my domain. Danny thinks this learning outcome should [currently be on Beginning](#).

Meeting Thomas - Bloks, Danny D., 22 Apr – Feedpulse

Hi Thomas, I am happy to read through this work, it is [well structured](#), [well explained in simple terms](#) and concise wording. I even read through the Provisioning phase without getting bored (which I usually do because I am eager to see the models in actions ☺), but [you seem to have a way of writing your reasoning and showing the graphs etc. that keeps the reader interested](#). Well done! 👍

Michielsen, Bas B.S.H.T., 26 Apr at 17:34

Very good provisioning phase. You demonstrated good understanding of your data. I [really like the fact that you are very descriptive in your steps](#). Good job!

Pencheva, Sabina S., 1 May at 20:14

I think these 3 pieces of feedback from my different teachers perfectly show my understanding and proficient level of this domain. Danny starts by mentioning that this learning is mostly shown for him during my phase 4 and that I at that time (before iteration 2) was already at a beginning level for this learning outcome. After finishing iteration 2, Danny gave me a sufficient for this phase showing that I indeed showed what I had to during this phase.

Furthermore, both Bas and Sabina mentioned that they liked reading my submission, even going as far as to read my whole challenge because it was interesting.

Thomas. You have shown us (me and Sabina) so far that [you communicate very well with us as teachers, with Jugo as a stakeholder and within the group](#). You have shown your proactive role in this. I have not seen any written communication with Jugo, but that is because you are not the contact person. But in all presentations, you are the one in the lead. [Both learning outcomes are Proficient](#). Well done

Meeting Thomas - Schürgers, Frank F.P., 11 May - Feedpulse

Lastly, Frank also gave me feedback on this learning outcome, showing my ability to communicate not only in my written documents but also during meetings with stake holders and teachers.

I think these pieces of evidence clearly show my proficiency in being able to communicate in a well structured and easy to follow manner for my readers/audience.



## Future orientation

You can **identify and explore the context** in which your project takes place, and you can approach this from **multiple perspectives**.

Evaluation 2: I think this learning outcome is currently at a **Beginning** level, it could still be considered **Orienting** with more direct evidence needed.

Evaluation 2: I think this learning outcome is currently at a **Proficient** level.

### Evidence Evaluation 2

Hey Thomas, It seems you sufficiently dove into the domain of movies. Could be a little more extensive, and too bad you can't find an expert, but maybe you could then add some "literary source"(?) (<-maybe a piece about what makes the "world of movies" tick?) to use as an expert? If you can't really find that, don't put too much more time in that and go on with EDA-ing. Good start so far!

Bloks, Danny D., 8 Mar at 14:12

The feedback shown above was given by Danny on my Iteration 0, he starts this feedback by mentioning that I sufficiently dove into the domain of movies, Danny goes on further highlighting the problems that I have had trying to get in contact with a domain expert. It is also mentioned that I could add Literary sources to improve my understanding.

As we discussed recently, in this way the Proposal Phase seems sufficiently displayed in this document and your process. So good job. For the Provisioning Phase you should ask Sabina. Good luck!

Bloks, Danny D., 5 Apr at 14:36

During Iteration 1, I continued looking for domain experts with the help of my semester coach, however I also took Danny's advice and tried finding more different angles to approach my domain from and adding literary sources.

As said in the feedback above from Iteration 1, I seem to have done this to a satisfactory degree, giving me no real points of improvement and mentioning that I can move on to the next phase.

From this feedback I think I have done plenty of research into the context and effects of my project and showing a good investigation into the different perspectives of my domain and project.

### Evidence Evaluation 3

During iteration 1's modelling phase I dropped the ball on this learning outcome, I mostly forgot the goal of the project and instead of finding the best model for my domain I tried finding the best model in general mathematically, as said in feedback from Bas.

but we do AI not because we can, but to "address a case", you seem to have changed it into a hobby to run models and fiddle with the hyperparameters and the goal has become sort of secondary.

Michielsen, Bas B.S.H.T., 26 Apr at 17:34

I made a comment about you missing the point and you seem to have quickly recovered from that. You feel no "problem" stating that previous reasoning was flawed and now want to have another shot. Even though you are occasionally verbose, I never dislike reading your work. You have a sharp eye for the differences in details and you do not jump to conclusions and leave questions as they are.

Michielsen, Bas B.S.H.T., 10 May at 16:15

I applied the feedback received during iteration 2, and as the feedback above shows have improved on this aspect.

Furthermore, Danny has graded all my SI phases as sufficient, showing that from a domain understanding perspective I have also shown this learning outcome to be on a high enough level.

## Investigative problem solving

*You can Identify a problem and create a **hypothesis** and **research question** and can do this using a sound **research methodology**.*

*Evaluation 2: I think this learning outcome is currently at an **Orienting** level, while lacking enough feedback for a higher grading.*

*Evaluation 2: I think this learning outcome is currently at a **Beginning** level, needing more direct evidence to show that I am on a **Proficient** level.*

### Evidence Evaluation 2

Also, I think what will help you is to write down some subquestions

Pencheva, Sabina S., 15 Mar at 10:15

During Iteration 0, Sabina gave me the feedback to add sub questions besides my main question to give me a better Idea of what to expect and what could impact my challenge. I added these sub questions afterwards and did indeed do more research into different aspects of my domain and possible factors that could affect my approach.

One of these factors were other features that I had not considered during my Iteration 0 initially such as actors impacting the performance of a movie, I had written this out with my reasoning for this. Bas had later given me feedback on this which is displayed below.

I do agree with your statement that perhaps enriching the dataset will give you more usable features.

Michielsen, Bas B.S.H.T., 15 Mar at 16:37

From this it seems that I have done a good job at being able to formulate and convey my reasoning and hypotheses made, with the example above given as one indication of this process.

### Evidence Evaluation 3

Hi Thomas, it is clear to me that you are a very capable student / applied researcher and have also a way of explaining what you are doing such that the story is interesting to follow. I made a comment about you missing the point and you seem to have quickly recovered from that. You feel no "problem" stating that previous reasoning was flawed and now want to have another shot. Even though you are occasionally verbose, I never dislike reading your work. You have a sharp eye for the differences in details and you do not jump to conclusions and leave questions as they are. I would not be surprised if at some point in your future you find yourself publishing a paper, and I would certainly like to read it. 👍

Michielsen, Bas B.S.H.T., 10 May at 16:15

While I do not have a lot of direct evidence to show for this specific learning outcome, I think the feedback Bas gave me perfectly shows my progress when it comes to working in a research-based environment.

The fact that he both directly indicates that the research that I done in a sound way, and believes in my ability to do this, even going as far as to suggest that I perhaps in the future would publish a paper shows my proficiency when it comes to investigative problem solving.

## Personal leadership

You are **proactively** looking to improve your own **development and learning**, while taking a **leading position** in your projects.

*Evaluation 2: This learning outcome will be at **Undefined** Because I currently have no evidence to show my progress, however I have discussed this with my study coach who will give me feedback on this in the future.*

*Evaluation 3: I think this learning outcome is at a **Proficient**.*

### Evidence Evaluation 3

Because this learning outcome isn't as easily shown via direct evidence, I had asked my semester coach for a feedback session focusing on gaining evidence for this learning outcome which is shown below.

Besides asking for direct evidence for this learning outcome, I have also focused more of my attention since last evaluation on getting feedback session with my teachers helping me get a better understanding of what I can improve on and what I am doing well, together with giving me direct evidence to use in this PDR.

Furthermore, I have also taken a leading position in my group project during this semester, while I am also trying to give my other team members the possibility to take the lead for their own development, I have consistently been in a front position during meeting with the stakeholders or when discussing what to do for the project itself.

Thomas. You have shown us (me and Sabina) so far that you communicate very well with us as teachers, with Jugo as a stakeholder and within the group. [You have shown your proactive role in this.](#) I have not seen any written communication with Jugo, but that is because you are not the contact person. [But in all presentations, you are the one in the lead. Both learning outcomes are Proficient.](#) Well done

Meeting Thomas - Schürgers, Frank F.P., 11 May - Feedpulse

I think these written and general pieces of evidence show my progress and level of personal leadership, both within my group project as in my own development.

## Internship Preparation

You create **opportunities** for finding an **internship**, that aligns with your **personal needs** and the **school requirements**.

*Evaluation 2: I think this learning outcome is on a **Beginning** level.*

*Evaluation 2: I think this learning outcome is on an **Orienting** level.*

### Evaluation 2

For my Internship Preparation I have been building up a list of internships provided on the [ASAM](#) Fontys platform that I am interested in. The plan for this list is to be able to identify what kind of internship I want and give me a list of internships I can contact.

I have also gone to the career day organized in the Fontys TQ building, during this day I talked with many companies, such as Axians, Mobeye, Vanderlande, Alten, LiveWall, BDO and more.

Many of these I have signed into their systems as provided by them either via a website or on paper, hoping to get an interview with them in the future.

I have also asked some companies who might not have been giving internships for year 3 students questions about applying for jobs/internships seen as I would like a clearer picture of this.

From the companies that I spoke to during the career day, BDO stood out to me, the representatives were very welcoming and nice to talk to, we also discussed BDO's currently used technologies, and these aligned very well with my experience so far.

Furthermore, I have been looking into creating a CV to share with companies, I already have a LinkedIn page that I have built up over the years, and a GitHub page for my technical projects, but I lack a CV and am not sure how to structure one properly.

I have asked my semester coach on feedback for this, and he is planning on doing a workshop for this in the future.

### Evaluation 3

After the last evaluation, I had it very busy with my challenge and thus did not have as much time to work on finding an internship.

However, during this period I have created a CV that I can share with possible internships (one company asked for mine and I did not even have one to give) with the help of my semester coach Frank, seen as he has experience in this area.

Furthermore, I have started contacting companies from the ASAM platform asking about their available internships and am currently waiting on their replies.

## Retrospective

## Conclusion