Decision Support System

Reflection

Bachelor's degree in the field of applied computer science

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Contents

1 INTRODUCTION

This report reflects on my internship experience and is divided into two parts. The first part focuses on the internship project itself: what was achieved, what remains to be done, and how it may be used in the future. The second part is a personal reflection on what the internship meant for me, the challenges I faced, and the lessons I learned. This reflection aims to give a complete overview of my internship and how I experienced it.

2 INTERNSHIP PROJECT

During my internship, I worked on developing a clinical support system. The purpose of this system is to help clinicians and patients by enabling earlier diagnosis and more proactive treatment. For the company, this system provides a valuable solution that is ready to be connected to real machine learning models and medical data. It has also been designed in a way that allows it to be easily expanded and improved in the future.

Although the system was not fully finished during the internship, I made strong progress. Deployment of the project and full integration of the production model could not be completed due to hardware limitations and a delay in receiving the necessary data. Because of this, the system was not deployed during the internship and is not yet being used by external parties. In addition, the machine learning model that the system is meant to support was still under development, so I did not include a final production model.

Still, I took important steps to prepare the system for future use. I made sure that the structure of the application is flexible, so it can be easily updated with new models and data pipelines. For example, I moved the logic for saving data and generating visual outputs into a separate service layer. This means that new model training workflows can be added without needing to change the entire system. To support other models, a new form can be created to handle their specific settings or parameters.

While working on the project, I noticed that new versions of the model were being developed regularly, as this area of research is still very active. This made it clear to me that fully integrating one specific model might not make sense. Instead, it was more useful to focus on creating a flexible foundation. That way, when server hardware becomes available and the system can be deployed, it will be easy to plug in the latest models and pipelines without having to rebuild everything from scratch. I also created documentation to help the next developer understand how to continue the work, ensuring a smooth handover and continuity.

3 PERSONAL REFLECTION

From a personal point of view, this internship was a very rewarding experience. Working on a project that could have a positive impact in the medical field gave me a strong sense of purpose. I was also given a lot of freedom in how I approached the work. This allowed me to make many of the technical and design decisions on my own, which helped me grow both professionally and personally. I always made sure to discuss my decisions with my internship mentor, and I received very little negative feedback, which showed that I was generally on the right track.

This independence helped me learn how to manage my own time and tasks, and to keep the long-term goals of the project in mind. I learned to trust my own judgement while also staying open to feedback. These are important skills that I will take with me in future work and studies.

One of the biggest challenges I faced was the delay in receiving the required data. This could have stopped progress, but instead, I used the time to improve the system's design. I focused on making it easier to add new models and training pipelines. When the data did arrive, I realized that the models were being updated often. This confirmed that my decision to build a flexible system was the right one. It also taught me the value of thinking ahead and designing with future needs in mind.

In conclusion, this internship was not only a chance to contribute to a meaningful project, but also an opportunity for personal growth. I improved my technical skills, learned how to work more independently, and dealt with real-world challenges in a thoughtful and professional way. I am proud of what I accomplished, and I believe I have built a strong base for future development of the project.