



Redteaming with AI

Reflection

Bachelor's degree in the Electronics-ICT
field Cloud & Cybersecurity

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Academic year 2024-2025

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INTRODUCTION

The goal of this document is to look back on the completed 13 week of internship and reflect on how I have grown. I want to evaluate my past decisions and see how I can improve in the future.

The technical part of the reflection focusses more on the hard skills I developed during this period and how I managed the project.

The other part, the personal reflection, focusses on how I grew as a person and what I've learned in soft skills.

TECHNICAL REFLECTION

This internship assignment required a solid understanding of fundamentals like Cloud & Networking to set up the infrastructure and domain, modern technologies used in scanning and phishing, and knowledge of coding languages.

The infrastructure part was one of the easier aspects of the project. The setup in Azure mainly involved virtual machines and did not require in-dept knowledge. The domain name and hosting part of this was mostly new to me, I didn't really play around with this before. However, I learned it relatively quick, and the setup process went smoothly.

The "red teaming" part went smooth as well. Some of the researched tools were already familiar to me. A tool recommended by Refracted was BBot, which I didn't know about and learned how it is used and what it did. Ever since I started learning about phishing, people always tell about "look at this mail, it is obviously a phishing mail", but I have always wondered about how these mails are made realistically, not just talking about the cliché ones where "a prince" asks for money.

Refracted offered me to look at previous engagements of phishing campaign to learn how these were used in real-world scenarios. This was very educational and inspired me to integrate this in my own internship project. The setup can be quite complex, but looking back to what I've accomplished, I think it went well overall. There are definitely points that can see more improvement, but aside from those, I consider this part of the project a success.

The last aspect of the project was the coding, which I found to be the most challenging part, as development isn't my strongest side. I coded the backend using Python, since I'm familiar with it and find it a straightforward choice for scripting. The frontend was build using HTML and CSS for the layout, which came together quickly and didn't require much effort.

The real difficulty came from the JavaScript code. Without a doubt, it's not a language I feel confident in. However, because I needed to display complex content on the web pages, it became a necessity. I struggled quite a bit with the larger sections, especially when it came to maintaining the functionality of the code. I ended up spending more time on this than I had anticipated. In the end, I can say my skills improved—but I'd rather not go through that part again.

In conclusion, this project felt limitless, which made it exciting, yet difficult to set boundaries. My own freedom made this project really enjoyable to work on. In the end I can confidently say that I'm happy with the end result and the technical skills I've developed along the way.

PERSONAL REFLECTION

Apart from the technical knowledge, I've also grown as a person. I wanted to invest more time in learning about cybersecurity and this internship gave me a great opportunity to do so. Not only was the assignment itself motivating, but the people at Refracted also encouraged me to keep learning and improving. My mentor and I held weekly feedback sessions to look back on the progress made and future steps. This was a great opportunity to receive feedback and ask questions.

Since the beginning of this school year, I made it a goal to keep my notes, information, and feedback more organized. Usually, I am quite a chaotic person, and I wanted to change that and stay consistent throughout the internship. I used "Obsidian" as a note-taking application to manage all my gathered knowledge. I created graphs and structured notes, and by the end, when it was time to document everything, having all that information neatly organized in one place was a huge help.

One of the things Refracted organized was a final presentation where all interns presented their projects to the entire company. The goal was to showcase our work and receive feedback. This was excellent preparation for the upcoming bachelor presentation, as it helped me get used to answering more difficult questions. It was also valuable practice in explaining complex topics to an audience that wasn't entirely technical.

Overall, I grew a lot as a person during these 13 weeks. I realized that being part of a company is a very different experience compared to a school environment. At school, students in the same year generally share similar levels of experience, but in a company, you're surrounded by professionals who have years of experience and a lot of knowledge to share.