

Self Assessment

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My individual contributions to the project include implementation of networking aspect of the tool, as well as code review and optimization for host modules. More specifically, I appropriately mapped the open system connections, taken from the TCP and UDP tables of the operating system, to the current running processes of the system. In addition to this, I also created the appropriate UI components to display findings. Lastly, I implemented the packet capture capabilities based on a current active connection. Furthermore, I also contributed to the team by providing knowledge, resources, and recommendations for the development of the tool, since I had prior experience in the cybersecurity field.

I learned a lot of internal mechanisms of Windows, as well as the Qt framework. I had not worked on C++ GUI applications beforehand, so it was particularly challenging learning a new framework. Most notably, though, is learning about inter process communication in windows, and how the OS stores active connections. I built great competencies in developing windows applications as well as working with the windows API. In terms of my biggest success, implementing the networking capabilities of the application was both difficult and rewarding, specially the ability to capture packets.

My group accomplished the development of a process monitoring tool with network capabilities, YAHOS. I learned how to properly communicate and showcase progress when working on software with version control–GitHub in this case. From this experience, I found that weekly meetings aid the team greatly, specially when it comes to project progress and overall team building. In addition to meetings, code reviews are extremely important to maintain high quality. Similarly, peer coding sessions were particularly useful in case one of the team members was stuck.

Thankfully all team members were fully devoted to the success of the project and, therefore, the development of the application. I feel all members contributed equally to, not only the quality of the project, but the design and implementation of features. Without Thomas' prior knowledge in both C++ and development with Qt framework, I would have struggled much more; consequently, he deserves special recognition.