Throughout the project, many challenges were faced. The most critical of these challenges was the requirement for research to cultivate the background knowledge of both unsupervised machine learning for image segmentation and HE – neither of which were covered in Tripos content. Specifically concerning HE, lack of documentation regarding scheme applications warranted many hours of literature reviews and deciphering research papers.

Furthermore, computations using machine learning and HE took a long time to execute – particularly when networking was involved. Consequently, debugging and evolving algorithms was a time-consuming process. This made strategic time management even more critical to allow enough time to complete a thorough investigation. However, these challenges did make the project a productive learning experience that will be helpful when exploring other areas of computer science in future or when working on any large projects generally.