

## **Personal Statement**

### **Project Management Skills**

The group software project was a delight to be a part of and has taught me a lot in terms of development with a team. I thoroughly enjoyed the concept of planning a meeting with an agenda and trying to fulfil that agenda within a given time. To plan something and to carry out that plan on a project of our choice is a new experience for me.

Assigning roles and choosing what to do for certain stages of development was fun. Our team chose to take an agile approach to project management. To assign the roles, we used Gantt charts and assigned peoples names to the dates that specific tasks would have to be done. We also used the development method known as Scrum to sprint our developments out in time for deadlines.

Planning how our project carries out is good. However, our plan sometimes didn't always go the way we wanted it to. People were busy on certain days, people needed help with their work, and we struggled getting our work to the quality we wanted to get it for certain documents. I learnt from these mistakes and in further assignments we started our work sooner and gave ourselves contingency time.

For the implementation, our team used Git as method of tracking changes in source code. As we don't work locally on the same machine, we used GitHub which offers free remote hosting for git and was perfect for development of 6. Using Git and GitHub, we were able to track teammates changes and download their changes and merge them with ours. Once a developer completed a scrum sprint, we 'pushed' our version to GitHub. This was a powerful tool and we couldn't have completed the implementation without it.

### **Technical Skills**

I have really enjoyed developing Turris for my group software project. We chose to make the game in LWJGL3 which uses Java as its main language. Java is something that we have learnt in our first two years of university and I have become even more comfortable with coding in Java on this project as well. In LWJGL3, we used OpenGL and OpenAL which has been completely new to me. It required a lot reading around the subject and required that I learnt how to use bitwise operators with binary shifts in Java for texturing images in Java. This is something that I never thought I'd know how to do. Even texturing fonts in a graphical engine has been a challenge and understanding the mechanics behind different types of font.

Git has been something that myself and everyone else in the group has had to learn too. Despite having used Git and GitHub in the past, I have used deal with team members merge conflicts which has been interesting to handle. The tool has proven itself very useful to use – especially with its integration with eclipse. Something that I did use git for is to look at some code I did in the past. I made a change to my program and tried to make it better, unfortunately, my change resulted in my code being incompatible with another team members. Fortunately, I was able to use Git to look back at an older 'commit' that I did in the past. From this, I was able to roll back my version to some old code that I lost.

Working with eclipse was difficult at first as the tools and build tools were hard to use. However, over time with trial and error, I was able to understand how certain tools on eclipse worked. I particularly had problems with the java build paths and getting LWJGL3 working with my eclipse project but ended up getting it to work.

### **Group working and Interpersonal Skills**

It can also be difficult to explain certain concepts to people or understand what other people mean. It's important to communicate with one another more to prevent this from happening. I found that illustrating my intentions or my ideas to my team mates is imperative to our project's success and found that presenting data and information in a more readable way is a good way of doing this. This proved many tools useful like the Gantt chart. This made the team very easy to work with as we all knew what we were doing.