# Personal Case Study of Nico van der Merwe

I have been working in game development as a developer for the past 7 years. I have worked with game engines such as Unity and Unreal to create interactive experiences and discovered my passion for solving real world problems by telling interactive stories in the Heritage, Education and Architectural fields.

I joined Falmouth MA Creative Application Development because I want to explore more of my creative side as an app developer and learn how to design applications for AR devices as well as reflect and learn from design challenge more effectively.

During the App Jam I built a game where a player solves puzzles by pulling levers to open doors and progress through a maze. The application was built in 45 hours using Unity targeting Virtual Reality devices and I picked the Samsung Gear VR as it is the device I on hand. Unity was my engine of choice as I can rapid prototype very fast in C# and get something up and running quickly compared to the Unreal Engine and I wanted to explore the new features integrated into Unity for mobile development as well as compare the two engines with one another in their current state. This would help me plan my approach better in the future when it comes to Game Engines. I choose VR as I wanted to see how far I can push the lighting for mobile VR inside the unity engine compared to Unreal engine.

I started planning my app on paper and laid out some basic levels as well as got some assets lists going on a excel sheet so help me plan my design. Afterwards I decided to jump right in and finish some key components and add new ones where I think it would make an impact in my App. I used a free time logging and management tool called Harvest App to help me record my time and make sure I wasn’t going over the time limit set for the App Jam.

Close to the end I had to rush some important features and designs I wanted to include for example how the leavers are pulled and the timing with the animation as well as adding more ambient sound FX to add to the environment. This left holes in my application by having important core features like the lights guiding the player to the next objective not completed as intended and made navigation in the maze difficult. Even though I stopped three hours before the 48-hour mark, I knew that I couldn’t add any more components to my app as I might end up introducing bugs that could hinder my current build and break my project completely before deadline.

My planning, scope and time management skills failed me. I started looking into how I could have managed my project and time better during the app jam and improve my approach on applications development by integrating project management tools like Trello and setting up boards and to do lists so that I can see what needs to be done and plan my scope and time around features better.

I also found that my understanding of agile wasn’t complete during development and I started looking at how my planning and development went so wrong. I started reading sources on being agile in planning and design and found that I was practicing some elements of Agile like Pragmatic programming in that I take responsibility for what I do and think solutions instead of excuses. I don’t put up with bad design or coding and fix bugs and issues as I see them.

I had this basic knowledge of being Agile but did not understand the core principles the methodologies that could make production much more effective for example “The planning game” of Extreme programming (XP) that always makes me plan the scope and objectives for the next release of my application and “Continuous integration” to make sure I always integrate features as it is completed into the application.

I further found that applying agile methods like “Simplicity” that says to always make use of the simplest solution that can work as well as “Feedback” that decreases iteration time between the response of doing something and getting the result to my projects would have improved build iteration, time management and scope a lot and helped me keep designs simple and achievable by helping me plan and manage my approach as simple as possible for the problems that arose.

In my projects going forward I need to combine Agile XP and Pragmatic programming methods with the new project management tools like Trello and Harvest. This will help me make better decisions around project management and scope as well the execution of my goals by taking the time to plan ahead and create all my boards and tasks I need to do inside a single space that contains to-do lists and completed-lists so I can see what needs to be done as well as the time it took to complete them as and comment on the agile approach I took to achieve these goals and if it worked for me.

I will be a more efficient App developer in the future by applying my new gained knowledge and I know I have achieved this by seeing the new practices applied help me manage my project, time, design and features better and develop complete functional projects that reflect my original vision within the scope, time and design I set out and not run out of time doing so.

I need to continue reading up on articles and papers on the effects certain values of Agile Extreme and Pragmatic programming have on a project and how to implement them correctly. I will also be looking at reading up on more Methods available and learn of their pros and cons and see if they work for my project before I integrate them into my environment. I will take 3 hours once a week to read more on Extreme and Pragmatic programming methods to see how I can improve and integrate the correctly. I will also set aside 3 hours a week to learn a new plugin or tool for Trello that are freely available to see if I can’t improve my project management skills and provide a new way of managing tasks better. This time will include making sure I am on track with the tasks I set myself in Trello and that everything is in place for the next week.