Introduction to Information Technology

**Personal Information**:

I am Duane. My full name is Duane James Tanjutco. My student number is **s3785672** whilst my email is [**s3785672@student.rmit.edu.au**](mailto:s3785672@student.rmit.edu.au). I have a Filipino background as both of my parents are from Manila, Philippines.

I completed Kindergarten back in the Philippines before my family moved to Australia in November 2005. I completed the rest of my education here in Melbourne, Victoria.

I commenced primary school in St Leonard’s at Glen Waverely for Prep and Year 1 before moving again to Lynbrook Primary School from Year 2 to Year 4 before moving once again to another school called St Christopher’s for Year 5 and 6. I also had my first communion and confirmation here as my family is of a Catholic background.

I began high school at St Peters College (West Campus) in Frankston form Year 7 to Year 10 before fin ally moving to Salesian College Chadstone to complete my high school in Year 11 and Year 12 and where I graduated.

The predominant language back in the Philippines was Filipino, however I dropped my home language once moved to Australia. I can no longer speak Filipino however I can understand parts of it if spoken by friends and family.

My brother owns two guinea pigs named Snow and Brownie, although they belong to him, they’re regarded as the family pet. We originally started with two guinea pigs named Jasper (Male) and Gatsby (Female), who bred and thus Snow (Male) and Maya (Female) were born. Few months later, they bred again, and three more guinea pigs were born, Brownie and two other unnamed babies. We then chose to give away Gatsby, Maya and two of the unnamed guinea pigs to friends and relatives leaving my family and I with Jasper, Snow and Brownie. Unfortunately, Jasper passed away in September 2018, leaving us with only Snow and Brownie.

Hobbies of mine include playing video games and playing tennis. My interest in video games began when a friend of mine showed me is Gameboy Advanced. This caused me to get a Nintendo DS and a Nintendo Wii. Another friend of mine showed me their Xbox 360 which sparked my interest in the Xbox console which would shape most of my video game interests in the future such as Halo, Destiny and Titanfall.

**Interest in IT**

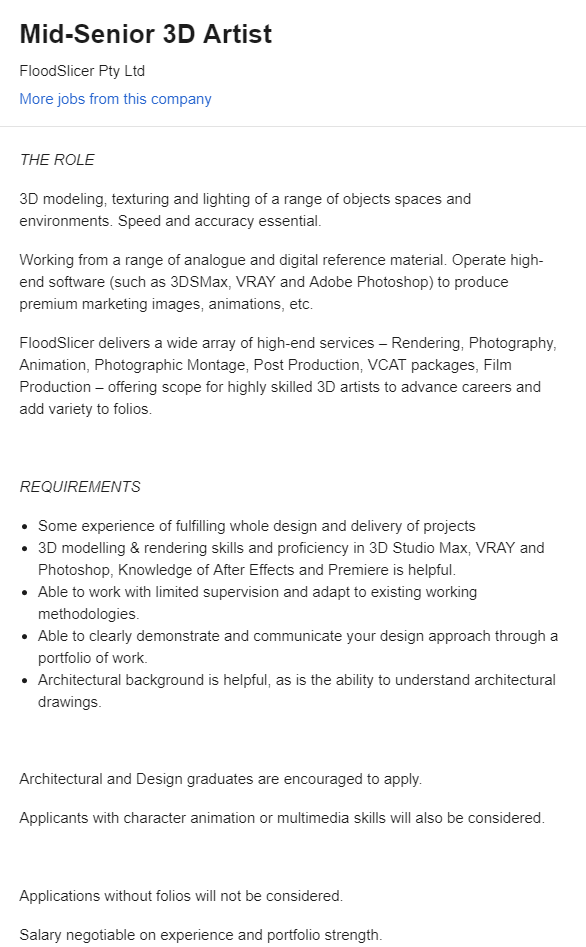
Playing video games sparked my interest within Information Technology, notably how video games were made and the type of work that goes into making a video game. I wanted to know more on how Information Technology evolved into what it is today and how it makes up a lot of our society through our phones, the internet and of course video games.

Notably, I was more interested in the design element of creating video games such as drawing the characters or other design aspects of a game rather than the technical side of things such as programming and level design. However, I believed that it would be more important to study the basis of Information Technology as it would benefit me more in the future.

I chose to study at RMIT because I am told that it is a more much ‘hands on’ university in comparison to other universities such as Melbourne Uni or Monash that focused more on bookwork which I am not a personal fan of. It is also much more convenient for me to get to from where I live where it is just a single train ride away.

In the studies of Bachelor of Information Technology, I expect to learn a bit about the history on technology and how it affects our society and how it has changed us. Additionally, I also hope to learn some basic skills such as programming in my studies that can be applied in the future as many jobs and businesses require some knowledge and expertise in this field.

**Ideal Job:**

<https://www.seek.com.au/job/38500947?searchrequesttoken=ef138a9f-1067-4f57-9531-c299e87ca1d6&type=standard>

This job placement is for an individual who has an interest within the animation and technology field such as 3D-Modelling or the use of technology in the modern world. I’ve always held a passion for the work that goes into different types of media in modern society such as video games, advertisements, tv-shows/movies and devices.

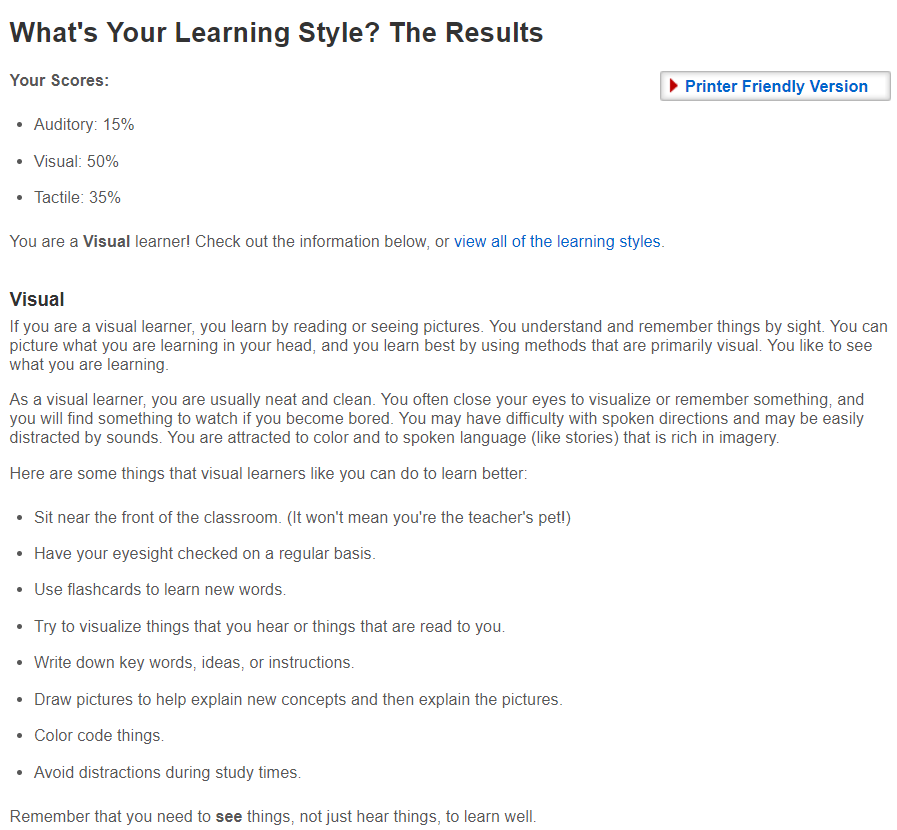
For my ideal job, it would require me to be knowledgeable with multiple programs on the computer such as Photoshop, Adobe Premiere and more. Experience from the design, animation and multimedia area would be vital in fulfilling this role. Design experience includes architectural knowledge and context. Animation experience includes knowledge with 3-D Modelling software such as Maya 3D.

I can confidently say I have experience in most of these fields as a student who was interested within the design industry before. Personal experiences include 3D-Modelling, texturing, Photoshop, Adobe Illustrator. However, I do lack some experience with other programs such as Adobe Premiere or After Effects. Although I may know how to 3D model with Maya, Studio Max and VRAY may be less familiar for me.

To obtain these skill, qualifications and experiences would require me to possibly undertake another minor course that centers more on these design experiences. An example of this at RMIT University would be the Bachelor of Design (Digital Media) or Bachelor of Design (Animation and Interactive Media)

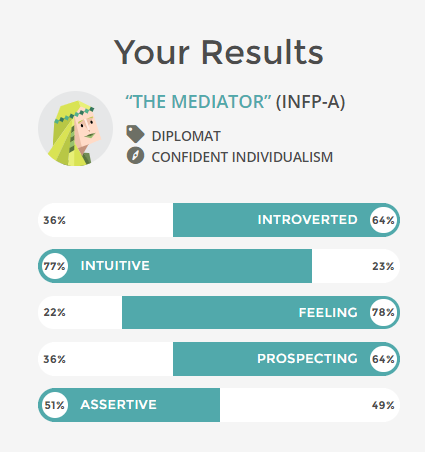
**Personal Profile:**

*Learning Style Test:*



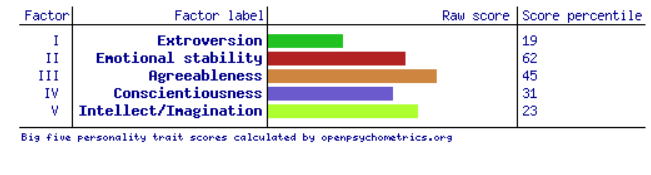
*Myers-Briggs Test: Mediator (INFP)*

<https://www.16personalities.com/infp-personality>



*Big Five Personality Test:*

<https://openpsychometrics.org/tests/IPIP-BFFM/results.php?r=2.2,3.2,3.7,3,3.4#_V>



The results of the *Myers-Briggs* personality, *Learning Style* and *Big Five Personality* tests tell me that I’m much more of an introverted person compared to being extroverted while also being a type of person who quietly observes others in an environment whilst avoiding coming into contact with that environment with a few exceptions such as being with friends. I like to believe that I have a wide and colourful imagination that I just simply choose to not talk about to with others.

These results for myself may affect my behavior in a team as I may end up being quieter compared to others as a member who would rather sit back and listen to what my team has to say rather than including my own thoughts. However, I would try my best to involve myself with the others in my own team for the sake of myself and the others.

When forming a team, these results may come in useful for myself as I can find people who I would be more comfortable sharing my thoughts and ideas with which can lead to me contributing more during team discussions and debates. This sort of communication would be vital when working as a team with others towards a common goal.

**Project Idea:**

A project idea that I have would be a special program that can convert 2D images into 3D concepts based on the detail and shape of the 2D image that could be a photograph, drawing. The amount of detail that is available within the 3D model will be based off how much information can be derived from the provided 2D image. The software will grant the capability of exporting the automatically generated 3D model into a file that may be opened within another program like Maya so it can be edited further by a user.

This can be extremely beneficial for many industries out there whether they are designing a video game environment, or someone is designing and developing a new phone. This program can revolutionize the way things are made based on early concepts from designers. It will allow all companies around the world to envision their final product better or make it easier for concept artists to create what they want more accurately. This can be an extremely powerful tool in a world that now heavily relies on the technology for production and conceptualization.

This program dubbed ‘VeeR’ as a placeholder name, has the capability of scanning an existing 2D image such as a photograph, drawing or an electronically generated image and attempt to convert that image into a 3D model. For example, a picture of a landscape view with a mountain and a forest would be converted into a plane that depicts a rotatable, zoomable and editable model of the image. If the scanned image were a person or something that had humanoid characteristics, it would produce a 3D model of the person whilst the program attempts to recreate any detail that has been shown in the image.

The program may also attempt to create a 3D visualization of a concept such as a phone or other shapes. The program attempts to generate a 3D model based off of a series of algorithms and pre-identified shapes that will generate a 3D model in accordance to specific shapes that it may identify. If there is a shape or form that the program does not identify, it will instead either insert a 2D image onto the plane alongside the other 3D models so it can be seen as part of the model from a 2D perspective or it will still attempt the 3D model by taking the original 2D image and adding depth to it along the back of the image.

However, when a portion of an image is not able to be identified, the accuracy of its attempt at a 3D generated model vastly decreases. However, if the user so chooses, they may export the 3D-generated model into different types of files depending on the program they choose to modify it such as Maya 3D, where it will export it as a .fbx file for use in that specific program only.

The user may also choose to modify multiple settings for the 3D model generator. These settings will allow the user to toggle them to affect the way that the 3D model is generated such as toggling a polygon limit, so it decreases the amount of processing power that is needed for a PC to properly render the model. Another setting that the user could toggle would be the amount of detail that is put into the generated model so the user can choose to add their own unique details to the model that the program would be unable to recreate.

The user may also choose to do a ‘re-scan’ of their provided 2D image whilst changing the settings of the program so it can update the generate 3D model in real time with the changed to the settings. An example of this would be to change the density of a forest on the generated plane once the program has identified the scanned image to include a forest within it.

For more accurate scans, the program is also capable of scanning technical drawings of buildings or objects such as plan elevations or third-angle orthogonal drawings and thus create a generated model based off the measurements of the drawings.

For ‘VeeR’ to run to the best of its ability, it would be best for this program to be used only on the most high-end of PC’s that are capable of providing enough power for the program to generate the potential detail within the 3D generated models. By having a more powerful computer, it widens the user’s options on how they choose to have the 2D image of their choosing to be generated in terms of quality and detail, the PC should be powerful enough that it can handle high amounts of polygons on 3D models.

Little to no skill is required to use the program as the program does most of the hard work by generating a 3D model based of an image, however further skills are needed to take advantage of some features of ‘Veer’ such as the capability to export and edit the model in another 3D Modelling software such as Maya 3D. Generally, this software is for companies or individuals who have the money to spend on the appropriate software and hardware needed on a PC that can use the program to the best of its ability.

If ‘Veer’ becomes a successful project, it can greatly improve the efficiency in designing a product by an individual or company and allow users to explore their ideas much more as it would be much easier to gain a deeper visualization on their ideas. Furthermore, this will widen the number of individuals who will be able to share their ideas to the world and greatly improve the chances to transform abstract ideas into a reality.