

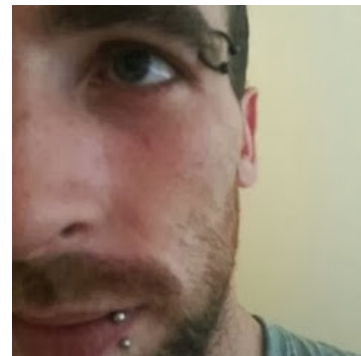
Steven John Holman
s3514124

https://github.com/scuba156RMIT/IIT_Assignment01
https://scuba156rmit.github.io/IIT_Assignment01/

My Profile

Personal Information

My name is Steven Holman. My student number is s3514124 and my email address is s3514124@student.rmit.edu.au. I am a 32-year-old male living in Victoria, Australia, and am currently studying a Bachelor of Information Technology with RMIT. I have two children, with the youngest having low-function autism. My hobbies mostly include gaming, programming, and music. I practiced playing the guitar a lot when I was younger, and played in some bands, but I don't find the time to pick up it up much these days.



Interest in IT

My interest began with computers when I was young watching my brother build his own 486, which I found fascinating at the time, and watching him play games on it such as UFO Enemy Unknown and Civilization. I completed a Certificate IV in IT in 2006 and since then I have had an interest in programming. I have developed programs such as homebrew applications for the Xbox 360 console, mods for games, and have recently started to learn Unity for game development all within my own time teaching myself.



This has now led to me looking to obtain the qualifications I need to start my career in the world of IT, which RMIT best leads me towards this path. I hope to increase the skills that I have already obtained and learn more about the areas of IT that I do not have any experience with.

Why did I choose to come to RMIT

I had studied at RMIT prior to starting this course and found it really welcoming with great support staff. Online study allows for flexibility to fit within my schedule so that I can complete my study in my own time without having to travel across the state to do it. RMIT is also known for its focus on technology which is something I am looking for.

What do I expect to learn

While I have had some previous study in the IT field, a lot of it has been self-taught especially with programming so I am really interested in expanding that knowledge and filling in the gaps. Some areas that I feel I lack in are software design patterns, test driven development, and security. I've previously focused on .Net development using C# as my language of choice, and feel getting more exposure to other languages such as Java would be highly beneficial to increasing my skill set.

There are many other social aspects of Information Technology that I am not currently comfortable with, so it would be great to be able to expand on that and improve my social skills throughout this course.

Ideal Job

Currently my ideal job would be a software developer for a game studio. I find this appealing as I have a great passion for video games, logic solving and my previous experience with Unity has been extremely fun to learn the skills for game development.

Senior Games Developer

About Us

Senior Games Developer required for a fun and vibrant organisation, working on mobile, console and PC. This organisation has a range of benefits from strong career development plans, flexible working arrangements and uncapped leave. We are looking for a Game Developer, who is highly experienced on either Unreal or Unity Engine.

Responsibilities:

- Developing mobile game applications in C# within the Unity3D engine
- Collaboration and communicate with game designers/artists on implementing features
- Accurate timeline estimation and task breakdowns
- Setting up projects from an early stage


Requirements:

- A strong understanding of Games Development
- Working on projects from start to finish.
- Ability to work in a team and autonomously
- Strong experience with Unity or Unreal Engine
- Experience working on either Mobile, PC or Console games.

Apply:

Please send over your updated CV to
joanne@discoveredpeople.com.au

Joanne Paul
[0414298213](tel:0414298213)



This would include developing games using the Unity engine with C# or Unreal engine using C++, so experience with one of these game engines is needed. It would require a good understanding of game design, patterns and deployment to multiple systems such as PC, console and mobile devices.

I currently have some experience with Unity and have been using C# for a number of years, including developing for PC, consoles as well as Android based devices. I have some understanding of design and patterns that are commonly used for software development.

My plan to achieve this goal is to continue gaining more knowledge and experience using the Unity engine on my own free time, as well as learning about the standard practices utilized in designing games.

This also includes continuing my study with RMIT to understand more about technology and how it

applies to everyday life, along with a strong demonstration of my skills in software development. There may also be further study in the future to meet the skills needed and seeking employment as a junior software developer to gain experience in the field.

Your personality type is:
Adventurer
ISFP-T

Personal Profile

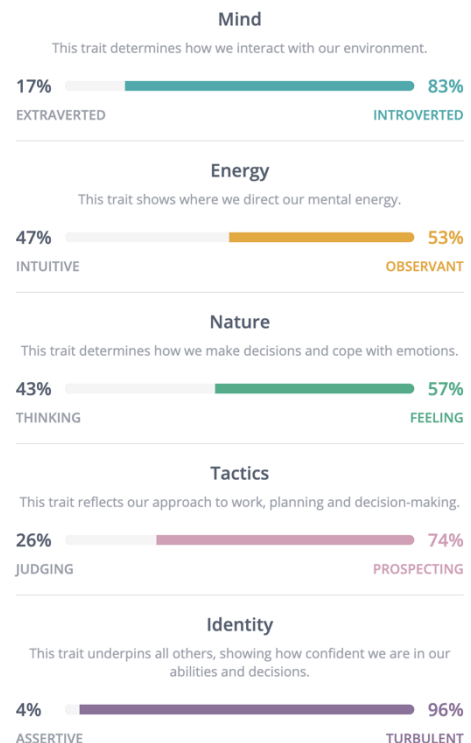
I feel that these results line up pretty well with what I have experienced throughout my life so far, with being an extremely introverted and shy person but also enjoying the occasional company of others. I am artistic, curious and always help others where I can, but find my own self esteem to be extremely low, get stressed easily and prefer to work on my own.

What's Your Learning Style? The Results

Your Scores:

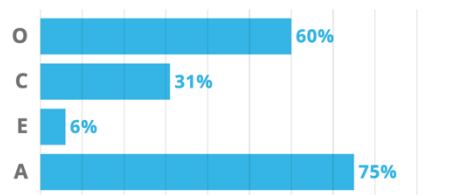
- Auditory: 50%
- Visual: 15%
- Tactile: 35%

I think this will make it difficult for me to integrate well into a team, especially with my social issues and shows that I have areas to improve on. Communication and planning is key in working with a team, which will require me to rely on others for these areas while I bring my own set of skills to contribute to the team.



Your Personality Trait Scores

This Big Five assessment measures your scores on five major dimensions of personality: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (sometimes abbreviated OCEAN). Check out your scores on each of the five dimensions in the graph below, then read on to discover what each score means.



Core Pattern

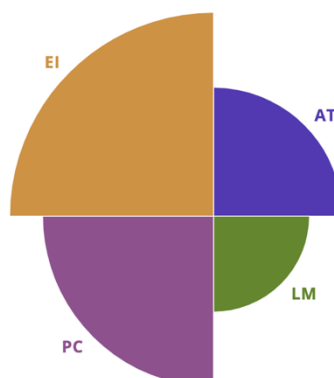
This circumplex describes the essential role you take on in approaching the world. This role is a reflection of your core values and motivations, as well as the way you think about things.

EMPATHIC IDEALIST

Uses insight and creativity to help others. Thinks about how the world could be a better and more beautiful place.

PRACTICAL CARETAKER

Helps other people in practical, everyday ways. Uses established institutions to maintain stability and security.



ANALYTICAL THINKER

Solves logical problems with rational, complex analysis. Thinks about innovative ways to improve systems.

LOGICAL MECHANIC

Ensures accuracy and efficiency in logical systems. Uses proven methods to accomplish real-world goals.

Project Idea

Overview

My project idea is an application for Android based tablets that allows a child with autism to use the device in a safe and fun way while limiting the amount of sensory information being presented. It will be similar to a home screen replacement where the child can only access what is provided within the sandboxed application and other approved applications.

The application aims to limit its use of sensory stimulus towards the child while encouraging them to learn within their capabilities and entertain them in a way that will help reduce frustration by the child.

Motivation

While there are applications available that aim to do similar things, such as Samsung Kids, they fail to meet the specific requirements of a child with autism and can often over stimulate them with sensory elements such as bright colours and loud audio. They also do not meet the educational requirements of an autistic child by assuming the education level of the child using the application.

My own 8-year-old son has low-functioning autism spectrum disorder which brings a unique set of educational challenges for a child that does not speak or read and relies on pattern recognition. He absolutely loves using his tablets, but it can be extremely frustrating for him when certain actions occur that he is unfamiliar with, cannot work out how to proceed with the task the application is asking of him or plays stimulating audio/video that he is unexpecting.

Description

The user interface will be simplistic by design, using minimal colour variations while avoiding 'bright and loud' colours, minimal sounds throughout the application, and easy to recognize icons that are not similar in shape or patterns. Word usage must be at a minimum so children that do not have the education level to read can still use the application with ease, while also understand what each action does. It must aim to achieve as little input from a parent as possible.

The application will allow the launch of other apps that are tailored towards children with disabilities or ones that parents deem acceptable for their children to use. This will include educational applications as well as leisure actives such as games or media that is aimed at young children. Each category of apps will be separated into groups that are recognizable by the child using clear images. While parents will be able to allow any app they wish to be used by the child to be launched, there would be a whitelist of apps that are tailored

towards education of children with autism that the parents can install by a simple install function, such as a store.

While memorization can be key for the child to recognize and remember the functions of the application, some customization will be necessary to include so they can tailor it to the way they wish to use it. This must be easy for the child to access, while preventing accidental moving of icons as the child tries to use it to prevent any frustration from them.

The child will be locked out of the android operating system for protection with a password or physical security such as fingerprint or facial recognition provided by the operating systems API. Parents need to feel secure about what their child is using and that they are not able to access anything that they should not be able to such as the internet without their consent.

Tools and Technologies

Development of the application will be done using the Java language in Android Studio. Sketch, or a Windows based equivalent such as Figma, can be used for the user interface design. A database will be required to store approved apps that can be launched, SQLite can be used so the application does not need to phone home.

An android tablet device will be required for testing of the application. Targeting an older android version will be preferred to ensure more devices are capable of using the software.

I have access to all the tools required, including Windows PC, MacOS, and an Android tablet, so availability of the tools will not be an issue.

Skills Required

Proficiency in Java software development will be necessary, as well as database and user interface design. Knowledge and experience with both children and autism will be highly valued as that is the key demographic for this application.

Communication with third party app developers could be key in providing a safe space for the children, in which case communication skills will be needed to provide such relationships with them.

While I have the software development skills to develop such an application, my design and communication skills are lacking which may require some outside help.

Outcome

The outcome of the project would be an application that can help supplement the educational needs of children with autism, while also providing them entertainment without the anxiety and irritation currently occurring by both the child and the parent. This could have benefits to the child's development if successful and improve their daily life quality.

It would also be a great test of my capabilities in software development while providing an improvement towards my own child's daily life that I could be proud of.

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