

COSC2196

Introduction to Information Technology

Assessment 1: My Profile

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Student ID: S3905126

GitHub Public Repository URL: <https://github.com/mattwotton/mattwotton.github.io>

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Nationality & Culture: Australian born with Filipino and Kiwi heritage

Education: 2001 - Year 12 certificate.
2018 - Certificate 3 Retail Baking

Languages Spoken: English

About Me:

I am a trade qualified baker of 15 years, specialising in sourdough bread. I prefer to make sourdough bread as it is very hands on and typically does not rely on machines such as dough moulders.

I originally wanted to be a chef but found I was more suited to baking as a hot kitchen can be quite a stressful atmosphere. I love cooking at home and making homemade pizzas as it combines my two loves: cooking and making bread.

What is your interest in IT? When did your interest in IT start? Was there a particular event or person that sparked your interest? Outline your IT experience (if any).

IT is an ever-evolving industry and what it is now is completely different to what it was 10 years ago. Our lives are affected by IT every day, whether it be our smart phones sending a notification to us sitting down in front of the TV watching Netflix. It's this kind of innovation that interests me and what will come in the future.

I was initially interested in IT as a high school student while taking computing classes. However, as my life evolved and started to include new activities, my interest took a back seat to everyday life goals and needs.



My interest in IT was been re-sparked as I look to future proof my career and get out of the hospitality industry.

I have no professional experience in IT outside of being an end user.

Why did you choose to come to RMIT?

I chose RMIT as it had more flexible study options through Open Universities. I also know RMIT is considered one of the top universities when it comes to IT studies.

What do you expect to learn during your studies?


My aim is to learn and to take in as much as I can during my studies so I can determine where I may be best suited to pursue a niche interest within the IT industry.

Ideal Job:

My ideal job would be one of Cyber Security Analyst. Cyber crime and Information technology security is of major importance, not only to big businesses who need to protect their data and their customers data but also to personal users who need to protect their private information and data.

My current understanding is that hackers and the alike are always finding new and creative ways to breach security systems and I find the need to be ahead of such breaches interesting and complex work which I believe I would enjoy and excel at.

<https://www.seek.com.au/job/51742510?type=standout#searchRequestToken=5bb44240-5c6e-4698-8d4b-7b92d1ad6fdb>

**Cyber Security Analyst**
The Citadel Group
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We are a leading software and services company that specialises in secure information management in complex environments. Our people are the essence of our business. We value differences, skills and experiences and bring these together to build high performing teams and deliver enterprise level secure information management solutions to clients across Australia.

About the Role

We are currently looking for an experienced Cyber Security Analyst to be responsible for the cybersecurity monitoring of networks, servers, endpoints and cloud applications in an enterprise environment. Reporting to the Chief Information Security Officer, this role will see you:

- Continually monitor networks, servers, endpoints and cloud applications in an enterprise environment.
- Provide cybersecurity subject matter expertise to internal and external stakeholders.
- Proactively hunting cyber threats within complex technology environments.
- Working with internal and external stakeholders to combat advanced cyber threats.
- Conduct vulnerability assessments, security audits/reviews, and cyber threat emulation against Citadel Group internal and external environments.
- Automation, improvement and innovation of offensive and defensive cybersecurity activities.

About you:

We are looking for someone with a keen interest in cybersecurity, who thinks outside the box regarding current and emerging cyber threats. More specifically:

- The ability to critically analyse information security-related data, events and incidents.
- Strong knowledge and understanding of information systems, networking and cybersecurity concepts.
- Ability to coach and mentor junior security staff.
- Strong written and verbal communication skills.
- Strong interpersonal skills and ability to liaise with various teams and with customers.

The successful candidate will have experience with Elastic, Azure and EndGame software as well as:

- Complex security operations environments.
- Extensive knowledge and experience across SIEM, endpoint detection, threat hunting, and security sandbox technologies.
- Knowledge and experience across forensics, reverse engineering, firewalls, content filtering and file integrity monitoring technologies.
- Information security & software development.

Qualifications including Information Security and Software Development tertiary education, Information Security Training and Certifications including SANS GCI+ / SANS GCIH / SANS GPEM / CISSP / OSCP are highly desirable.

Description of position:***Description of skills, qualifications, and experience required.***

The Citadel Group would ideally like someone who is interested in the cyber security field of IT with a strong understanding of IT systems as well as networking and security concepts. Someone who may have been in a management or supervisory role would be of benefit as junior staff may need mentoring. Written and verbal skills are required as is the need to communicate effectively with other teams and customers.

Further experience with the following software would be ideal, Elastic, Azure and EndGame. As well as knowledge and experience in security operations, SIEM, endpoint detection, threat hunting, security sandbox technologies, forensics, reverse engineering, firewalls, content filtering, file monitoring technologies, information software and software development.

Qualifications required for the above role would include a Bachelor in IT specialising in cyber security and software development and certifications including; SANS GCIA / SANS GCIH / SANS GPEN / CISSP / OSCP would go a long way in being considered for this role.

Description of skills, qualifications and experience I currently have.

I currently do not have the technical skills or knowledge required for this position; however, I do have excellent verbal and written communication skills and interpersonal skills which would allow me to liaise with my peers and customers in an effective manner. I believe this to be true as I currently hold a management position in my current work industry where I supervise junior staff as well as train in specialised skills and I have previously held a position where communicating various stakeholders was part of my role.

A plan describing how I will obtain the skills, qualifications and experience required for the position.

In order to achieve my goal as a Cyber Security Analyst with The Citadel Group, I will need to firstly complete my Bachelor of IT through RMIT with a focus on cyber security and software development. By doing this initial step I will have a good grounding of the IT industry and the required skills to develop my experience for the role. The next step would be to further my skill set and training by enrolling in the required courses to obtain the certificates outlined in the job description. This would then require continued upskilling to ensure certification remained up to date.

Personal Profile:

Big 5 Personality Test:



Open Source Psychometrics Project

Results summary

Your results from the IPIP Big Five Factor Markers are in the table below. The table contains a raw score and also a percentile, what percent of other people who have taken this test that you score higher than.

Factor	Factor label	Raw score	Score percentile
I	Extroversion		97
II	Emotional stability		95
III	Agreeableness		67
IV	Conscientiousness		12
V	Intellect/Imagination		23

Big five personality trait scores calculated by openpsychometrics.org

Trait descriptions

Factor I	Factor II	Factor III	Factor IV	Factor V
<p>Factor I was labelled as Extroversion by the developers of the IPIP-BFFM. Factor I is sometimes given other names, such as Surgency or Positive Emotionality.</p> <p>Individuals who score high on Factor I one are outgoing and social. Individuals who score low tend to be shut ins.</p>				

What do the results of these tests mean for you?

I believe this result to be correct and accurate of how I conduct myself. I am an outgoing person and enjoy being social.

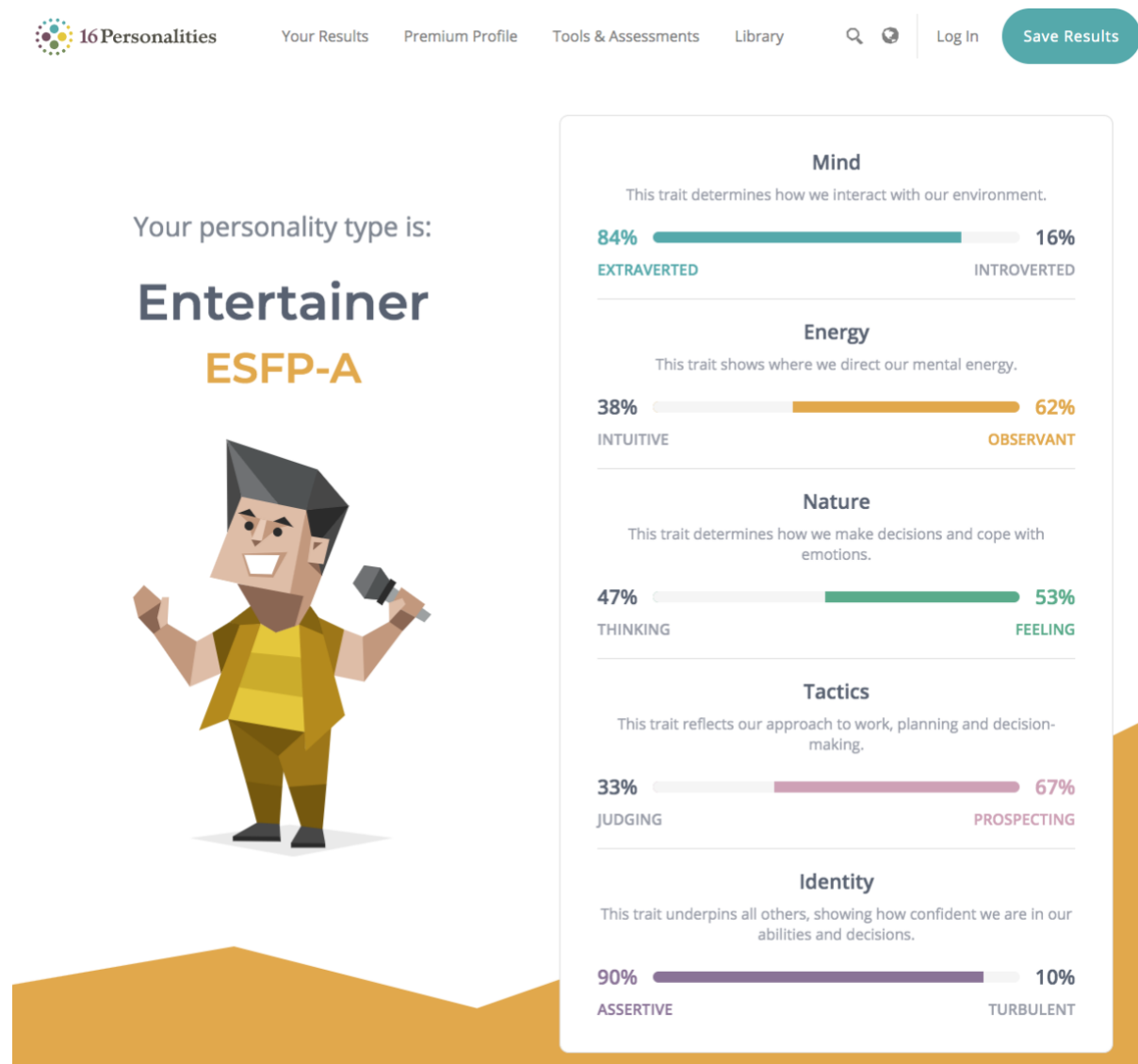
How do you think these results may influence your behaviour in a team?

I don't think these results will influence my behaviour in a negative way. I find my personality type to be a positive as I tend to take the leader role within a group, and I have no problems in communicating with them.

How should you take this into account when forming a team?

I prefer to be in a team with similar people who can communicate effectively. And as such, I have reached out to people who have been active within our discussion boards and chats.

Myers - Briggs Test:



What do the results of these tests mean for you?

Out of all of the tests, this one is the most thorough and accurate. I love to be the entertainer and I am loud and constantly sing and dance to please myself first and foremost. I get a genuine buzz in seeing other people happy and do my best to lift the energy of others who might be around.


How do you think these results may influence your behaviour in a team?

I'm very relaxed and bring a calming energy when at work which helps others relax and to get on with the task with minimal stress. I can also lift energies when required to help build excitement traction when a task gets repetitive and boring. My behaviour is not influenced by the team I am in as I act the same in most situations.

How should you take this into account when forming a team?

Again, I look for similar traits and eagerness to participate in group activities such as discussion boards and chat pages.

Learning Style Test:



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Career Planning

Preparing for School

Paying for School

Self-Assessments

What Kind of Student Are You?

What's Your Learning Style?

Which Study Habits Can You Improve?

How Strong Is Your Character?

Ask a Counselor

My Smart Borrowing

What's Your Learning Style? The Results

Your Scores:

- Auditory: 20%
- Visual: 30%
- Tactile: 50%

You are a **Tactile** learner! Check out the information below, or [view all of the learning styles](#).

Tactile

If you are a tactile learner, you learn by touching and doing. You understand and remember things through physical movement. You are a "hands-on" learner who prefers to touch, move, build, or draw what you learn, and you tend to learn better when some type of physical activity is involved. You need to be active and take frequent breaks, you often speak with your hands and with gestures, and you may have difficulty sitting still.

As a tactile learner, you like to take things apart and put things together, and you tend to find reasons to tinker or move around when you become bored. You may be very well coordinated and have good athletic ability. You can easily remember things that were done but may have difficulty remembering what you saw or heard in the process. You often communicate by touching, and you appreciate physically expressed forms of encouragement, such as a pat on the back.

Here are some things that tactile learners like you can do to learn better:

- Participate in activities that involve touching, building, moving, or drawing.
- Do lots of hands-on activities like completing art projects, taking walks, or acting out stories.
- It's OK to chew gum, walk around, or rock in a chair while reading or studying.
- Use flashcards and arrange them in groups to show relationships between ideas.
- Trace words with your finger to learn spelling (finger spelling).
- Take frequent breaks during reading or studying periods (frequent, but not long).
- It's OK to tap a pencil, shake your foot, or hold on to something while learning.
- Use a computer to reinforce learning through the sense of touch.

Remember that you learn best by **doing**, not just by reading, seeing, or hearing.

Printer Friendly Version

What do the results of these tests mean for you?

I 100% prefer to learn by doing and by being hands on as well as learning from the mistakes in the process. I do often forget the steps in between to finishing a task but can always finish a task. I do fidget a lot and tend to take smaller more frequent breaks when attempting to complete a task.

How do you think these results may influence your behaviour in a team?

As I do prefer to be hands on and learn as I do, I may find it difficult to process some information when working in a team remotely. It means I need to be more aware and focused on my actions, so I do not miss information that my team conveys to me.

How should you take this into account when forming a team?

My strategy has remained the same when forming a team and for the people I look for; active in the discussion groups as well as the chat forums.

Project Idea:

Drive Aware

Drive Aware will be a mobile app available through the Apple App Store which professional drivers, (e.g., long haul truck drivers) and their employers will use to track fatigue indicators and warn of fatigue caused by long periods of sustained driving. The mobile app will work in conjunction with a wearable smart device that will be designed as part of the project. Drive Aware will provide real time monitoring and observe and track vital signs of its users which will include heart rate, O2 levels in the blood stream, body temperature, and respiration rate. The front facing camera of the iPhone will also be utilised to monitor eye movement, yawning, user alertness and head positioning with the help of AI technology.

According to the Western Australian Road Safety Commission; in 2018 there were 15 fatigue related fatalities on their roads. (Safety, 2021) and a total of 1135 road user deaths in Australia of that same year. (Road deaths road users, 2021)

“Without truck drivers, Australia stops” has been a long-held mantra within the transport industry, but it is this mantra that has caused drivers and operators to push their limits and their safety by driving and operating under fatigue caused by tiredness. By developing a mobile app and wearable tech that can track a driver’s vital signs. The motivation behind Drive Aware is to help decrease deaths of road users cause by fatigue and driving tired.

Drive Aware will be a mobile app that will be used in conjunction with a smart wearable device which will provide real time monitoring of its users’ vital signs. It will also visually monitor the user to determine signs of fatigued based off eye movement, yawning, alertness and head positioning by using the front facing camera of the iPhone. AI technology will be utilised to learn a user’s vital base levels and body positioning to help alleviate false readings.

Employers will have the functionality to access real time data of their drivers through the app as well as access the live video and audio stream provided by the front facing iPhone camera, with the iPhone to be placed on a purpose built base located on the dashboard of the vehicle.

The smart wearable device located around the wrist of the user will be powered by a rechargeable lithium battery and have 4 embedded sensors that will each monitor different vital signs: heart rate, O2 levels in the blood stream, body temperature and respiration rate.

With the integration of AI technology, vital base levels will be learnt of each user. This information can be used to set alerts and alarms to notify the user of signs of fatigue or falling asleep while driving. Alerts and alarms will also be received by staff that are monitoring the user in real time, who can then contact the driver directly through the app with the two-way microphone feature.

In the case of a crash, a fifth sensor will be activated which will enable the app to contact emergency services and provide location details with the help of the iPhones GPS system.

All data received by Drive Aware will be encrypted and stored using a subscription based cloud service with access to be determined by the end user.

The Drive Aware app will need to be developed and written in a yet to be determined code language, however if a service such as MIT App Inventor could be utilised; that would be preferred. Existing hardware to be used is the Apple iPhone and new hardware will need to be designed in the form of the wearable smart device around the users' wrist. A suitable charging and docking system will need to be designed to enable dashboard placement, with MagSafe technology preferred for newer iPhones. Suitable material for the wearable device would need to be investigated and prototyped to ensure ergonomics and comfortability is optimised.

Skills and tools that will be required will include coding of the app, interface design, software integration to Apple iOS and hardware integration, AI technology, hardware development of wearable tech and design including sensor development.

I believe the feasibility of this project is high as the skill, software and hardware is already in use within IT. It will be the integration of all elements which will be the difficult step, however it is achievable.

The outcome of a successful project will be safer roads and fewer deaths of road users due to driver fatigue. Drive Aware will provide education and awareness to drivers and the transport industry as a whole of the effects of driving tired. It will empower users to make smarter decisions about their driving habits and provide a greater responsibility to driver safety to employers as they have the tools collect data and monitor operations in real time.

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