NAUGHT

Assignment 2: The IT World

Team Profile

Website:

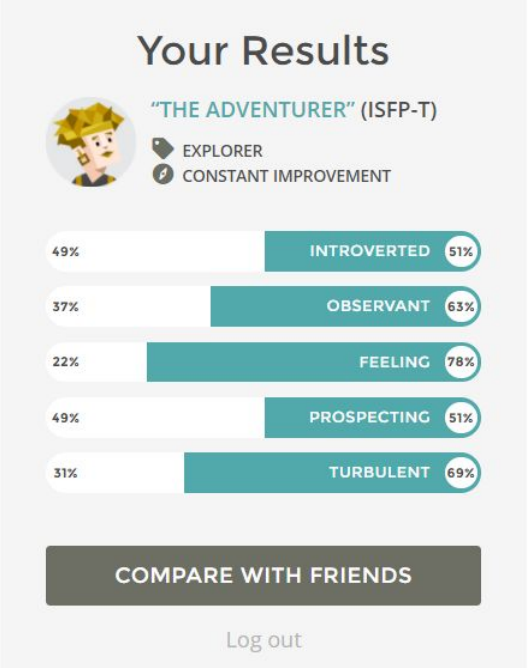
http://naught.s3-website-ap-southeast-2.amazonaws.com

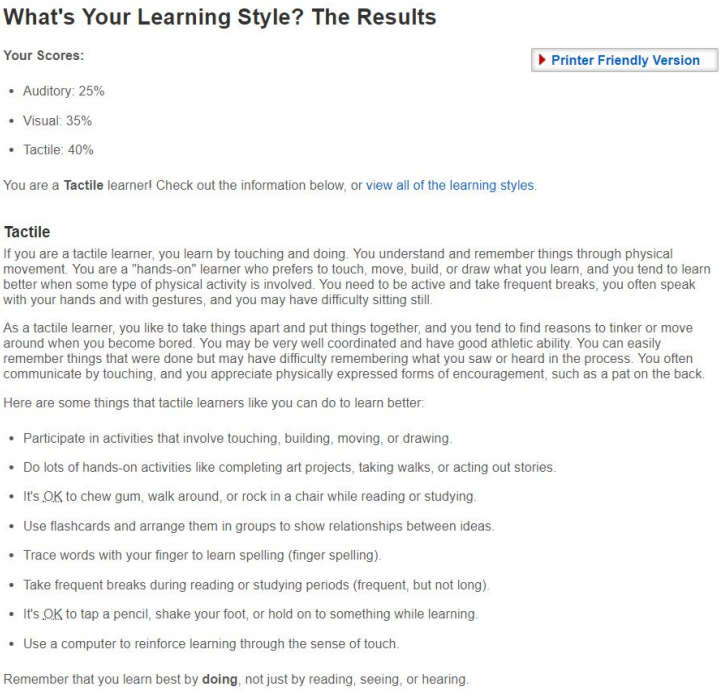
Github Repository:

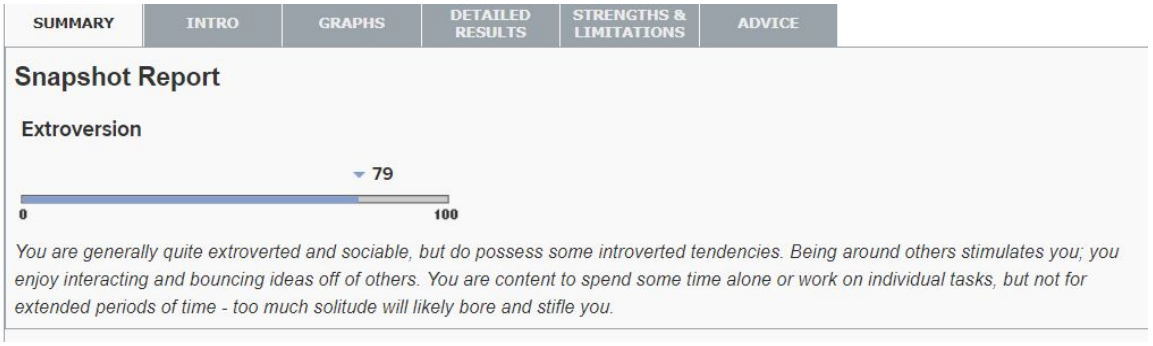
https://github.com/AlecJor/NAUGHT

Search AlecJor/NAUGHT incase link doesn't work

Andrew Nguyen
S3657733

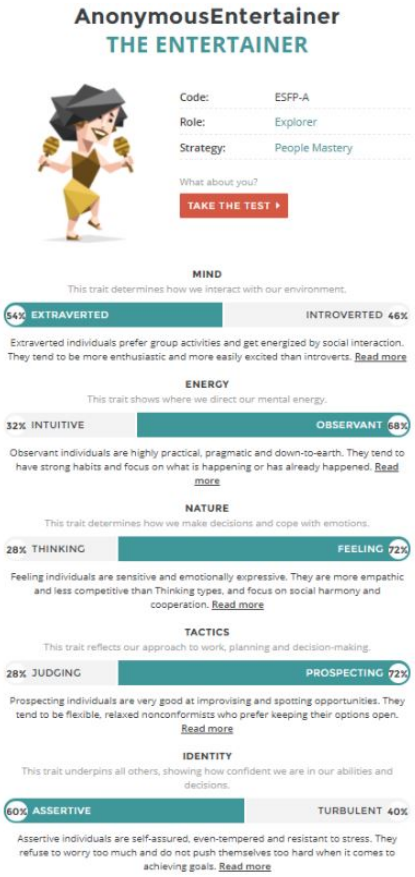






The test results from the three questionnaires reveals that I enjoy the presence of others which will stimulate me. This trait enables myself to work in a team environment effectively as I am able to cooperate and get along with people.

Adam Hannington-Chen
S3720247
Myers-Briggs: ESFP



What's Your Learning Style? The Results

Your Scores:

Printer Friendly Version

- Auditory: 40%
- Visual: 50%
- Tactile: 10%

You are a **Visual** learner! Check out the information below, or view all of the learning styles.

Visual

If you are a visual learner, you learn by reading or seeing pictures. You understand and remember things by sight. You can picture what you are learning in your head, and you learn best by using methods that are primarily visual. You like to see what you are learning.

As a visual learner, you are usually neat and clean. You often close your eyes to visualize or remember something, and you will find something to watch if you become bored. You may have difficulty with spoken directions and may be easily distracted by sounds. You are attracted to color and to spoken language (like stories) that is rich in imagery.

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

- Sit near the front of the classroom. (It won't mean you're the teacher's pet!)
- Have your eyesight checked on a regular basis.
- Use flashcards to learn new words.
- Try to visualize things that you hear or things that are read to you.
- Write down key words, ideas, or instructions.
- Draw pictures to help explain new concepts and then explain the pictures.
- Color code things.
- Avoid distractions during study times.

Remember that you need to **see** things, not just hear things, to learn well.

The CREATIVITY QUIZ

How creative are you?

Your score

You scored **59** out of a possible **100** points. That means that you are:

Pretty dang creative!

Holy smokes! You have a knack for being original, and you tend to do or create things that fuel your creativity. A lot of people are trying to be as crerative as you, but they're just not cut out for it.

Jeremiah Manalo
S3707088

Your Test Results

Thank you for completing our personality test! Here is a copy of your results:

Personality type: "The Protagonist" (ENFJ-T)

Individual traits: Extraverted – 71%, Intuitive – 58%, Feeling – 69%, Judging – 51%, Turbulent – 56%

Role: Diplomat

Strategy: Social Engagement

71%	58%	69%	51%	56%
EXTRAVERTED	INTUITIVE	FEELING	JUDGING	TURBULENT

MIND

This trait determines how we interact with our environment.

71% EXTRAVERTED — INTROVERTED 29%

Extraverted individuals prefer group activities and get energized by social interaction. They tend to be more enthusiastic and more easily excited than introverts. Read more

ENERGY

This trait shows where we direct our mental energy.

58% INTUITIVE — OBSERVANT 42%

Intuitive individuals are very imaginative, open-minded and curious. They prefer novelty over stability and focus on hidden meanings and future possibilities. Read more

NATURE

This trait determines how we make decisions and cope with emotions.

31% THINKING — FEELING 69%

Feeling individuals are sensitive and emotionally expressive. They are more empathic and less competitive than Thinking types, and focus on social harmony and cooperation. Read more

TACTICS

This trait reflects our approach to work, planning and decision-making.

51% JUDGING — PROSPECTING 49%

Judging individuals are decisive, thorough and highly organized. They value clarity, predictability and closure, preferring structure and planning to spontaneity. Read more

IDENTITY

This trait underpins all others, showing how confident we are in our abilities and decisions.

44% ASSERTIVE — TURBULENT 56%

Turbulent individuals are self-conscious and sensitive to stress. They are likely to experience a wide range of emotions and to be success-driven, perfectionistic and eager to improve. Read more

What's Your Learning Style? The Results

Your Scores:

Printer Friendly Version

- Auditory: 60%
- Visual: 30%
- Tactile: 10%

You are an **Auditory** learner! Check out the information below, or view all of the learning styles.

Luc Huynh
S3724706

YOUR PERSONALITY TYPE IS:

ADVENTURER (ISFP-A)

Everyone is an artist, but not everyone knows it!

MIND
This trait determines how we interact with our environment.
39% EXTRAVERTED — INTROVERTED 61%

ENERGY (INTUITIVE ▼)
This trait shows where we direct our mental energy.
24% — OBSERVANT 76%

NATURE (THINKING ▼)
This trait determines how we make decisions and cope with emotions.
26% — FEELING 74%

TACTICS
This trait reflects our approach to work, planning and decision-making.
44% JUDGING — PROSPECTING 56%

IDENTITY (TURBULENT ▼)
This trait underpins all others, showing how confident we are in our abilities and decisions.
78% ASSERTIVE — 22%

What's Your Learning Style? The Results

Your Scores: Printer Friendly Version

- Auditory: 35%
- Visual: 30%
- Tactile: 35%

You are an **Auditory/Tactile** learner! Check out the information below, or view all of the learning styles.

Auditory

If you are an auditory learner, you learn by hearing and listening. You understand and remember things you have heard. You store information by the way it sounds, and you have an easier time understanding spoken instructions than written ones. You often learn by reading out loud because you have to hear it or speak it in order to know it.

As an auditory learner, you probably hum or talk to yourself or others if you become bored. People may think you are not paying attention, even though you may be hearing and understanding everything being said.

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

- Sit where you can hear.
- Have your hearing checked on a regular basis.
- Use flashcards to learn new words; read them out loud.
- Read stories, assignments, or directions out loud.
- Record yourself spelling words and then listen to the recording.
- Have test questions read to you out loud.
- Study new material by reading it out loud.

Remember that you need to **hear** things, not just see things, in order to learn well.

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.

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PHEAA ags fedloan

Creative Problem-Solving Test

SUMMARY | INTRO | GRAPHS | DETAILED RESULTS | STRENGTHS & LIMITATIONS | ADVICE

Snapshot Report

Openness to Creativity

56

0 — 100

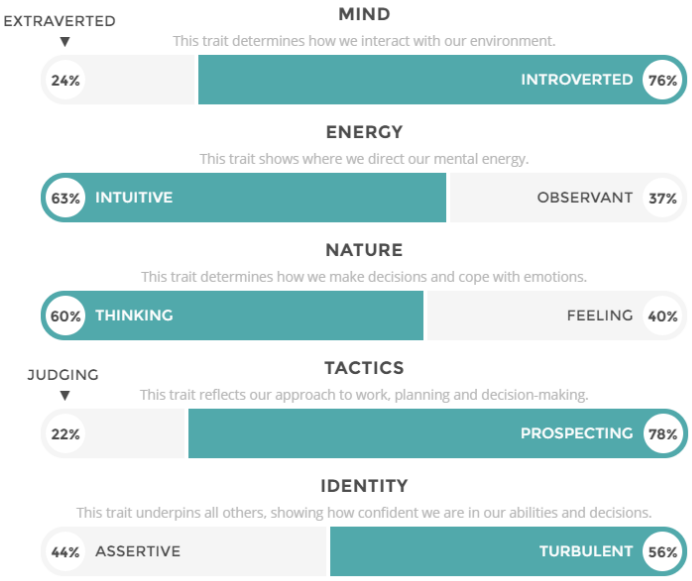
Your responses indicate that you're a "planning problem-solver". Essentially, although you won't let your imagination run wild, your approach to problems does strike a good balance between creativity and practicality. Although you may prefer to base your strategies on logical rules and conventions, you also try to think "outside the box". People who score similarly to you are both reproductive and productive thinkers. Depending on the problem at hand, you'll either use similar problems encountered in the past as a reference (reproductive), or look at it from different perspectives and search for alternative ways of solving it (productive). Overall, this is a fairly good approach to use. Remember however, that while there's generally nothing wrong with taking a more practical approach to problems, it does impose some limitations. By taking that step outside your standard way of thinking and expanding your imagination, you'll not only be able to increase your options but may end up uncovering ideas that had never crossed your mind before!

Alec-Jorneal Pen
s3717377

YOUR PERSONALITY TYPE IS:

LOGICIAN (INTP-T)

Hmm, it is not supposed to do that...



What's Your Learning Style? The Results

Your Scores:

- Auditory: 35%
- Visual: 45%
- Tactile: 20%

Factor	Factor label	Raw score	Score percentile
I	Extroversion		22
II	Emotional stability		39
III	Agreeableness		45
IV	Conscientiousness		18
V	Intellect/Imagination		40

Big five personality trait scores calculated by openpsychometrics.org

Jimmy Nguyen
S3721572

Your Test Results

Thank you for completing our personality test! Here is a copy of your results:

Personality type: "The Adventurer" (ISFP-T)

Individual traits: Introverted – 78%, Observant – 56%, Feeling – 69%, Prospecting – 58%, Turbulent – 72%

Role: Explorer

Strategy: Constant Improvement

What's Your Learning Style? The Results

Your Scores:

- Auditory: 35%
- Visual: 35%
- Tactile: 30%

You are an **Auditory/Visual** learner! Check out the information below, or view

Core Pattern

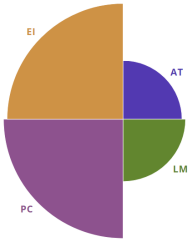
This circumplex describes the essential role you take on in approaching the world. This role is a reflection of your core values and motivations, as well as the way you think about things.

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.

What do these test results mean for the team?

Many of our Myers-Briggs tests had similar results, 4 ending in SFP, the other two NTP, and NFJ. A couple were more sided to introversion, a couple 50-50 and 1 extroverted. This is a good combination as many of us think and feel the same way. Having like-minded people leads to less conflict and argument over things. Having this combination of extroversion and introversion is good too as majority of the group would be willing to initiate a conversation or discussion with everyone, whereas a group of introverts would have a bad time getting to know each other and therefore their communication skills as a team may turn out horrible.

Ideal Jobs

Luc - AR/VR development
https://www.indeed.com/viewjob?jk=31b1598d11408c23&tk=1c989nhaj1d4v5kh&from=serp&vjs=3
The role of this job is to manage multiple projects while also building connections with business partners improving the artificial intelligence and machine learning technology. The fact that this position has multiple roles and not a single focus on a goal is what appeals to me.
You will need multiple requirements and qualifications to be recommended this role such as:

- Strong people skills to build relationships with multiple business partners.
- Have knowledge of financial services and their technology
- Excellent understanding and practical experience with artificial intelligence and machine learning.
- A background in machine learning and experience in multiple programs such as python/r

and UX.

Alec - Linux Server Administrator
http://www.pathofexile.com/forum/view-thread/1828027
This job seeks an individual(s) that desire work on the Path of Exile video game, more specifically those who desire to work on the servers.

The skills and qualification I would need to be considered for this job, would be experience in the programs for configuration management(Puppet), monitoring systems(Zabbix), continuous integration(Buildbot), a deep understanding of Python, both desired by the company and me the same, at least 3 years in Linux server administration and experience in SQL database administration. I would also need to become more familiar with scripting and automation as well as the literal assembly of computer hardware and also identifying hardware faults.

Jimmy - Game Programmer
https://learn.org/articles/What_Does_a_Video_Game_Programmer_Do.html
A game programmer is a developer or an engineer who works on the insides of program, such as its features and bugs. Programming mostly consists of coding, where each line of code allows the game to function. This position tests and debugs the code to check if errors exist within the program.
The skills, qualifications and experience required for this job position are to:

- Be able to code in programming languages fluently: the type of languages such as Java and Python may be needed for this position as it relates to gaming, but other languages such as HTML may not be needed.
- Have a decent amount of knowledge of the game: with a decent amount of game knowledge you can know what is happening when reading the code.

- Have a great amount of computer platform experience: as the game is played on the computer, is it good to have a great amount of knowledge on the platform as there may be differences compared to consoles.

Andrew - UX/UI Designer
https://www.seek.com.au/job/36074085?type=standout&userqueryid=ebdc70e71ac787c9d634855a8dbcc669-7128908
A User Experience Designer (UX) refers to a role that improves a product's usability and user experience aiming to to satisfy their interaction with your product. Similarly, a User Interface Designer's role is to make the product presentable, aesthetic and improve interactivity with the product. Both of these role work together very closely.

The role of this job requires an experienced UX Designer that will be researching, planning and conceptualising creative ways to improve user experience to solve complex issues within any context. The role is also required to work closely with a design team and many other important roles within the company.

This role is required that you have:
- 2+ years experience in a similar role with a strong portfolio
- Experience with researching and information gathering
- Demonstrated ability to visualise ideas
- Efficient management of time
- Good temperament for both mentoring and and working in a diverse team environment
- Extensive industry knowledge of current digital design standards and trends
- Strong knowledge of, and interest in emerging UX trends and front end web technologies.
- Degree qualifications of UX design or related discipline.

Adam - Senior Python Developer - Artificial Intelligence
https://www.seek.com.au/job/35682001?type=standard&userqueryid=f3f3d25bcc185ca6f13270ca006a16c8-9288246
This job requires the developer to write code that easily modified/edited, and testable by the organisation. I find this job appealing because it allows the developer to be creative with their skills in programming as there are a variety of ways to solve a single problem. There is also the possibility to work with/create AI which interests me.

The job is for senior python developers so many years (5+) years of experience of programming (in python) is required and have familiarity with JavaScript, CSS3, HTML5, jQuery, JSON. The ability to use AWS and Django. You must also be able to think ahead of current technology to create the next best technologies in this industry.

I currently know nothing about the requirements except for a very small amount of JavaScript and AWS. I have trouble coming up with new ideas as I'm not actually a super creative person but I would like to be one in the future. I'm having to watch youtube tutorials

on java coding to get through this first programming assignment. I have done computing: informatics in year 12 but that's about all the computing experience/knowledge that I have.

To obtain the skills, qualifications, and experience required for this job I will finish the first year of my I.T course, and given that my grades are high enough, I will switch into computer science for the remaining few years and finish a masters of computer science and get into AI this way. Along the way through these next few years I will do mini-projects by myself, possibly with friends, and hopefully make some cool things and even learn something from those.

Jeremiah - UX/UI Multimedia Designer
https://www.seek.com.au/job/36068895?type=standard&userqueryid=e1b5f08af00b740ac88a8b79452e5d92-5542863

Skills Required:

- Adobe Creative Suite
- Branding/Logo Design
- HTML/CSS
- Portfolio of projects

Traits Desired:

- Great communication skills
- Passion for design
- Attention to detail

In specific to the role displayed above, all of UX/UI Designers require skills and proficiency in Adobe suite, HTML coding and proficiency in other designing applications in which I'm sure I will acquire during my time at RMIT. I also require a portfolio in which I will treat my University assignments as products to display to employers.

Another occupation is a Multimedia Designer. As a Multimedia Designer I will be able to create content for clients whether that be visually or sonically and have a more creative flair in my work. Main tools of the trade would be Adobe Suite, specifically Indesign, Photoshop, and Premier. The Information Technology degree will give me an advantage as Multimedia crosses over in the Information Technology sec

IT Technologies

Cloud, Services, and Servers

What does it do?

The idea of **cloud** technology has been discussed since the 1960s, but by the 2000s cloud technology has developed to become one of the most accessible ways to computer services. Cloud technology is the accessibility of many computing services such as servers, online storage, software and many more through the internet. Instead of accessing from your computer's hard drive, users can access cloud services anytime and anywhere with an internet connection, thus called the 'cloud'. (Azure.microsoft.com n.d)

While being easy and efficient to access cloud, it is also: (BusinessQueenslandGov 2017)
Cost friendly – with users only paying on how much of the service they use. Money is not needed for maintaining systems with upgrades or energy use, as everything is stored online.

Reliable – the prevention data backup, and recovery from any accidents.

Collaboration – sharing files and teamwork through other users is simple with cloud. This can be between students or teams of business communities.

Security – to minimise risks of any data breaches, cloud providers have integrated protection and resilience against this.

Some examples of major cloud providers and their technologies are Apple's iCloud, Google Apps and Microsoft Online.

In the future, cloud technology may be incorporated to improve health-care services, so ultimately it will impact the population entirely; as the more secure the cloud becomes, the more it will be utilised to improve the quality of the services in the sense that queue times will be cut down due to the ease of the retrieval of documents and there would be less of a reliance on physical documents. Jobs will not become redundant, as you would still need people to retrieve the information from the cloud, it will just become easier. Though with this sort of development, comes the risk of severe crashing, meaning that leaks are entirely possible, and with the implementation of highly confidential information; this would be extremely devastating, pushing away the more paranoid population from considered getting involved with the cloud.

Servers are programs that allow the process of data between computers over the internet or network. There are multiple types of servers in the computing world, each hosting something different. Over time server technology has become more advanced, in terms of accessibility and security, and will continue to develop like this further for users. (Rouse, 2018)

Common types of servers are:
Web servers - these servers are responsible for the display of sites, pages and applications that execute through web browsers. They also can be used for uploading and backing up files through online services such as cloud.

Email servers - this program gathers emails from users and distributes them to the intended recipient. Similarly to a post office, emails can be stored to be accessed later at any time when requested.

FTP servers - the file transfer protocol is one of the internet's oldest services which focuses safe and secure file transfers between computers while maintaining the security of the file.

Game servers - this program hosts the specific game's multiplayer services for players. These services can host users coming from different consoles such as Playstation or Xbox, and computers as well.

Services regarding technology are designed to assist technology use by users and companies. With the combination of the functions of software, hardware, networks, telecommunications and electronics, these services are able to provide specific technological solutions. Services will continue to grow, providing more support for users and industries in the future in order to allow a seamless experience when handling technology.

Many IT services can be provided depending on what businesses and companies require within the IT community. Some of these servers include:

- Software development, integration and maintenance
- Hardware
- Networking integration, management and maintenance
- Information security (IS)
- IT management consultants
- Mobile services
- Web applications

What is the likely impact?
As there will be many positive outcomes when these technologies grow, such as the reliability, manageability and reduction of costs, which will very much benefit both users and the workforce. The growing number of people using this technology however will increase traffic and congestion due to the large number of users who simultaneously requesting for services over this technology. At worst, temporary shutdowns might be needed in order to process the large amount of requests, but minor congestions could result in slower processing times. These problems can be easily solved over time with the further development in this technology such as increasing the number of users who can use a server or simply increasing the number of servers and services we have currently. Huge technology corporations who provide these services such as amazon, microsoft and IBM will be in more demand with the growing number of users of these products of students and

users in the workforce. The work opportunities will only increase as more users utilize these services having a very beneficial effect in the workforce. Existing technology will only increase in size with old servers and services being replaced or upgraded, allowing an influx of job positions specialising in this technology. Over time this will provide more opportunities for people in not only the hosting companies but also those who utilise this technology within their work. Overall the evolution of clouds, servers and services will benefit everyone as it brings many positives to job prospects and in our everyday use of technology.

How will this affect you?

Each university student has their preference in what they do to progress in their studies. For majority of university students, they will use some form of this technology. Students have most likely experienced some form collaborative work with peer members in the same course. Google drive, a form of cloud technology is a key service for many students like myself who can easily create documents to complete group assigned tasks. Those who use any form of a computer, tablet or phone will have access to these services, which shows how essential this technology is for everyday life, such as mine. The accessibility of google drive on virtually any device, demonstrates how simple it is to work on projects or assignments from anywhere you want. With the development of services such as these, it will only be further promoted with users such as myself and those around me. The further improvements of servers such as web servers and email servers will continue to satisfy users like myself when these things become more consistent and seamless. When playing games, the occasional problem where a large and popular event starts causing servers to flood, slow down and crash due to the large player base logging in to play the game at the same time. This is very frustrating for players like myself as it delays or sometime denies an enjoyable gameplay. While servers have improved, it has completely removed the slowing down of servers. With time and effort this will soon reduce to improve gameplay and enjoyment. The changes in this technology will provide a better experience for myself and those alike.

Machine Learning

What does it do?

Machine learning stems from computer science, more specifically it is an application of Artificial Intelligence (Marr, 2016). The machine is given statistical techniques which allows them to analyse data and learn from it. They aren't explicitly programmed to respond to data in any way, the machine just adapts independently and accordingly to data depending on the task they are given (if they are given one) (Li, n.d).

The machines are limited to their area of work, for example; video surveillance, the AI learns what is normal behaviour for the environment it is in, and more importantly, the people in it. Once it has learnt, it can then detect unusual behaviour of the people or objects in the video feed. If it detects anything then it can send an alert to the staff or security (Daffodil Software, 2017).

Other current applications of machine learning include image recognition which involves identifying objects in an image such as a face.

Speech recognition, which allows a user to input into a computer through speech (Sharma, 2017). This can be seen in Apple's Siri, and Microsoft's Cortana, these personal assistants can be spoken to (input) and they can recognize speech and act according to what was said.

Prediction, the machine uses previous data it has collected or has been given to predict an outcome. Retail businesses use this to get an idea of how their sales will go in the future, up to even a year, possibly further, depending on how much data is fed to the machine (Sharma, 2017). Some shareholders use such prediction machines as well to see how their shares will grow or decrease in value over time.

In the future, Machine Learning will become more efficient as better machine learning algorithms will be created and used. Machines will be able to learn faster. Unsupervised learning will get better. Unsupervised machine learning will become better, this type of learning is when the machine is left unsupervised to learn by itself, no labels are programmed into it and it must interpret everything on its own (Franczuk, 2017).

The rate at which machine learning algorithms run will greatly increase over time as technology advances, and computers become faster and more powerful. As the development of quantum computers progress, machine learning algorithms can make use of these and learn rapidly faster than conventional computers (Franczuk, 2017).

The development of artificial intelligence (AI), not being the same as machine learning, makes machine learning possible. Both artificial intelligence and machine learning have a lot to offer. As artificial intelligence has been in development in the earlier years of technology, machine learning is found to be new to the scene (Marr, 2016). Machine learning is extremely better than people trying to break down a system into code. It is a subset of AI as its behaviour is mostly based on observed behaviour, whereas artificial intelligence is based off human reactions (Gray, A).

Neural Networks, or deep neural networks, have been introduced to machine learning scene. They are able to classify information in the same manner as a human brain, where it can be taught to identify and group many things (Rokk, K). This allows researchers to further expand on machine learning where they can distinguish what more is possible for machine learning.

What is the likely impact?
Being compared to the likes of “steam engines and electricity”, machine learning poses the potential to exponentially increase business efficiency, while simultaneously creating less of a market for workers, as machines can be programmed to “outperform people” (Carnegie Mellon University, 2017). Though that is to say that machine learning continues to grow outside of it’s restrictions, as previously stated, it will not make the entire workplace redundant, just specific parts, such as car assembly. The time will come, if it has not already arrived, where machines are predominately used in car assembly, more specifically within Tesla™, for heavy duty and technical work and show no signs of complacency, as there are signs that there can be “improvements to the machine[s] that make the machines” (Musk, 2018). With ideals such as those, it is evident that machines learning has the potential to overwrite the flaws of human workers, such as fatigue, thus cutting down the amount of jobs available in some parts within the industrial workplace.

Though when used outside of the practical work that machines are regularly used for, risks seem to emerge and pose risks to the economy, as seen in machine learning/algorithms used in financial institutions (such as the stock market). Through “collecting” and “min[ing]... data” algorithms are able to predict fluctuations, both positive and negative, in the stock market, thus allowing insight for alteration to businesses to ultimately improve their marketing and sales (Krishna, 2017). This can be interpreted as both influential and controversial usage of machine learning, as it can provide economic growth to a business, globally, due to the almost limitless nature of machine learning and its worldwide reach of information, it can also be tainted with both “intentional or unintentional biases” within the same data it analyses; and with how powerful machine learning can become, the more funding and reliance will be placed onto it, aggravating the risk of biases (Albinson, 2017)

How will this affect you?
Hypothetically, if machine learning were to be utilised by the public now, we would see many smaller businesses use algorithms as stated above to drastically assist in the prosperity of said businesses; this is mainly because there lies the potential for machine learning to become a powerful tool used for growth, despite the risks. There also lies the potential for the public to learn and engage with the new stages of Machine Learning/ algorithms, thus opening more jobs to the public within the area of Machine Learning.

However, with the more general public, Machine Learning will most likely not affect them in terms of the industry and the availability of jobs, as the jobs that Machine Learning/Algorithms fulfill are extremely specific as of now. Algorithms may be used to influence the public as a result of their assistance with the business, and in that sense Machine Learning has the potential to affect the entire population. Expanding on that, the effects of Machine Learning will most likely be seen as quality-of-life improvements to the public, as interpersonal aspects of jobs “can’t be automated” (Mitchell, 2017); meaning that Machine Learning will only affect the normal person to the extent of technical duties, detecting whether one has cancer cells, analysing cancer cells through vigorous samples, leaving the “human-to-human” interaction to current job holders, such as dermatologists (Mitchell, 2017).

Ultimately, Machine Learning will be witnessed by the public as tools for assistance, greatly reducing the time it takes for specific jobs to do technical duties, greatly improving the valuability of interpersonal interactions that cannot be automated by machines/algorithms.

Autonomous Cars

What does it do?
Autonomous cars are self-driving cars or robotic vehicles run by softwares that is designed so that it can travel to destinations safely without human intervention. (Rouse, 2011). The developing technology utilises various technologies to make it an automated car, these include a GPS sensing knowledge for navigation on the road to travel to destinations, and other technologies such as sensors to avoid collision with other vehicles (Technopedia, n.d.).

These robotic cars have evolved from the traditional cars to have the capacity to parallel park on their own, predicting merge time, gauging speed accurately, and even sensing the light in the environment in which allows them to adjust their headlights or high beams accordingly (Reichental, 2018).

The emerging autonomous cars have come to a point where automakers like Ford, Tesla, Google and Mercedes cannot ignore it and have been investing billions of dollars into the project (Davies, 2018). The technology has come a long way in the past five years, from “maybe possible” to “definitely possible” (Davies, 2018), the state and future of autonomous cars is very promising for automakers with many huge companies investing into the project and it is describe as a ‘commercial suicide’ if they are not investing heavily in the automated cars (Knight, 2013).

However, a recent incident that is known to be the ‘first fatal pedestrian crash’ involving a test self driving vehicle by Uber has killed a 49-year old Elaine Herzberg in Tempe, Arizona (Daniels, 2018). This has raised serious concerns and a number of pressing questions about testing the vehicles on public roads (Davies, 2018). As a result, Arizona Governor has suspended Uber from autonomous testing on public roads in Arizona. This had leading Uber to also suspending all their testings in Pittsburg, San Francisco, Toronto and will put their technology advances on a hold.

Similarly, another recent incident involving a Tesla Model X has fatally crashed a median barrier on a highway and quickly caught on fire before two cars crashed into it (Lambert, 2018). The vehicle had a driver inside, however the vehicle was on autopilot mode. The driver was taken to hospital after the crash but he had unfortunately died from his injuries (Lambert, 2018). Lambert (2018) states that it is unclear how the ‘vehicle moved from the lane to the barrier’ even though Tesla claimed that the autopilot completed ‘200 trips per day on this exact stretch of road’ (Lambert, 2018). Although it is exciting for automakers to be investing money, developing their softwares endlessly and test their new autonomous vehicles, safety of humans should be top priority.

In the next few years, the vast majority of cars on the road wouldn’t be autonomous yet, rather it isn’t ready as the technology still needs to be developed and tested on roads. According to Nvidia’s Corp chief executive, Jensen Huang, it will take no longer than “4 years to have fully autonomous cars on the road” but just not a plethora of it yet (Yu, Kim & Anantharaman, 2017).

Davies (2018) states that the hardware that will allow cars to be self-driving such as cameras and radars are “already cheap and robust” to build into mass-market car. Furthermore, Davies (2018) also emphasises that developing and improving the software is the real challenge that will correctly interpret all the sensors and cameras that will prevent errors and will be safe for human use.

How will this impact you?

The development of autonomous cars can provide positive impact to our society. The first and foremost problem that autonomous cars would address is the safety of drivers on the road.

Thousands of people die as a result of vehicle collision by human error every year, and with the development of this technology, it could reduce the number of deaths significantly as softwares are more ‘error-prone than humans’ (Union of Concerned Scientists, 2018). Cars that are run by softwares don’t need to worry about how fatigued they are, or whether they are experienced or inexperienced drivers. Additionally, the technology would also eliminate the drink driving or driving under the influence of a substance issue and therefore reduce the number of risks and ultimately, death.

Furthermore, Union of Concerned Scientists (2018) states that the self-driving technology can enable individuals who cannot drive such as the elderly or disabled, to be able to travel to destinations and therefore making driving more equitable for everyone. Another positive impact is that the precision of the drive-less car software could improve the traffic flow dramatically and reducing traffic jams especially in highways (Rouse, 2011).

Although there are a plethora of benefits, there are also concerns that could negatively impact the society. Union of Concerned Scientists (2018) mentions that cybersecurity is a major concern of the autonomous cars. The vehicle’s system can be vulnerable and would be prone to cyber attacks, and ultimately, this could lead to a ‘new breed of attacks’ such as ransomware and vehicle theft (Gaskell, 2018). Additionally, the implementation of autonomous cars onto roads could potentially leave many citizens that are employed as drivers unemployed leading them to poverty and a lack of jobs in society (Union of Concerned Scientists, 2018).

How will this affect you?

The way we commute to work, University or anywhere will be completely different with the implementation of autonomous cars on our roads. It will change our lives as car rides will be safer, convenient, affordable and productive.

Firstly, autonomous cars potentially can significantly reduce or eliminate the mortality rates as a result of a collision. According to a study by Eno Centre for Transportation, if the 90% of cars on the road are autonomous, then the number of accidents will significantly fall from six million a year to 1.3 million a year (Thompson, 2016). Thus, maybe we wouldn’t have to worry about reckless drivers on the road and our commute would be a lot more peaceful.

Everything will be a lot more convenient, getting picked up by your self-driving car without the need to be going for your driver's test or logging 120 hours or troubling your parents in the middle of the night. Going out for a couple of beer with your mates wouldn't matter too much anymore too as you won't need a designated driver for the night. Traffic congestion will also reduce, and we conveniently wouldn't have to worry about peak hour traffic anymore.

Additionally, autonomous cars can potentially promote sharing one vehicle instead of having personal cars in the family. Instead of buying two vehicles, you will only have to buy one, and fuel will be also cheaper. Thus, autonomous cars can be very cost effective for individuals.

Furthermore, autonomous cars will enable individuals to have more free time, people can be studying or doing work during their commute instead of driving and therefore increases productivity.

Lastly, for those that can't parallel park properly such as myself will now have their own cars parked themselves and not annoy nearby cars next to your parking space.

Cyber Security

What does it do?

What is the state of the art of this new technology? What can be done now? What is likely to be able to do be done soon (say in the next 3 years)? What technological or other developments make this possible?

With the exponential growth of technology, cybersecurity has equally grown with it as well. Cybersecurity has become a necessity with technology constantly growing, and with the birth of the Internet of Things is cybersecurity ever so required as it moves into our physical space.

New systems are built everyday and are now becoming more sophisticated, more complex and are built on a gargantuan scale as technology becomes more readily available. Users can communicate with each other, play games, transfer files, store their personal information and even transfer money. Now factoring in the unfortunate nature of humankind and everything morally/ethically wrong does this open up a world of vulnerability.

Just like crime happens in the real world, cybercrime also occurs. In the information age, these cybercrimes can come in the form of many ways, but mainly in the technology that we interact with. This can consist of a range of underbelly activity, from corrupting a user's computer, stealing their information i.e credit card details, to wide scale attacks on large organizations and cyberterrorism.

Malware, also meaning malicious software, comes in various forms and can vary in its negative impact on your system. Most commonly, spyware, adware, ransomware is the most detected. Adware infects the user by displaying advertisements and pop up ads when the user is online, whereas Spyware infects the user by capturing unwarranted information and data which is then transmitted to another user.

The most notable is ransomware in which the software blocks access to the computer until a sum of payment is made, a most recent attack was the US Hospital Hancock Health in which $50,000 in bitcoin was paid to unlock their systems and attacks on business are predicted to rise to every 14 seconds by 2019. (Morgan, 2018)

To be able to combat such an overwhelming array of activity does cybersecurity protect our computers, smartphones, networks, programs and data from malicious attacks and unauthorized access, and this is done in varying degrees of protection,

On a user end basis, all systems with a database that involves users incorporates logins and passwords to access user data and information, some of which require frequent changes with complexity and user verification via captcha. This can be flawed due to information being leaked or spyware obtaining this information. Education and prevention is also key for

users to identify what could possibly be malware, and security programs are an extra wall of protection preventing, detecting, and quarantining threats.

Newer technologies have also come of light with the boom of smartphones. Smartphones are now enabled with fingerprint scanners that can not only unlock their devices but also access their accounts and financial applications. Facial recognition and iris detection are also amongst the newer types of technologies to come about.

On an infrastructure end, operating systems are constantly updating with security patches to combat cybercrime, and the maintenance of devices are also integral to keeping a locked down system. Advanced security framework is also implemented on a wider scale for large scale businesses and cloud-based services.

With the recent birth of the Internet of Things and the ever-growing connectivity we have with our everyday devices does it, again, open up a whirl pool of opportunities for cybercrime. Whilst majority of IoT devices doesn't normally store valuable data, hackers may choose to hack a user's smart car and or smart appliances thus affecting our physical space.

The future of cyber security is an unforeseeable entity as with the growth of technology is constantly changing, and with the frequency of cybercrime is it apparent that cybersecurity is now a required standard for all technology especially amongst organizations, businesses and everyday people that revolve around technology. Cybersecurity is almost akin to the locks that protect your personal belongings or the gates that protect home.

What is the likely impact?

What is the potential impact of this development? What is likely to change? Which people will be most affected and how? Will this create, replace or make redundant any current jobs or technologies?

Cybersecurity is a necessity amongst all technology and with the entwining of technology and our everyday life will only constantly grow. With this does it only make way for more employment and job opportunities for software engineers and to find new ways of protecting personal data. A report called The Life and Times of Cybersecurity Professionals, by Enterprise Strategy Group (ESG) and the Information Systems Security Association (ISSA), found that 22% of survey respondents who had suffered a security incident over the last two years said their cyber security team was not large enough for the size of their organization, and 18% said that the existing cybersecurity team could not keep up with the workload (Rubens, 2017), displaying that organizations and businesses now require cyber security experts and is it at an ever-growing demand.

What cybersecurity is also likely to impact for the future is the use of block chain technology and a decentralized internet, which fall in the middle of each other. Blockchain is a distributed database used in both private and public applications rather than a centralized structure where all the information is stored in few very large databases.(Ravindra, 2018).

With users being able to make these exchanges without having to validate through a trusted third party, similar to a decentralized internet, does it allow for a more secure way of trade or storing of data. Block chain technology has made an impact on the financial sector for it's peer-to-peer exchanges and it's decentralized system.

Tampering is also extremely difficult with blockchains as it is easily detectable by miners. If in the case that blockchains were to be utilized for cyber security smart contracts would be of a more secure service, proof of ownership would void of identity theft and a backlog of the exchange would be timestamped and created with minimal chance of loss of the exchange.

The caveat to blockchain technology is that all exchanges are publicly viewable so there would have to be another system to be in place for exchanges that require privacy. Alternatively, a decentralized internet could possibly encrypt or fragment this dispersed information for only the authorized users to access the data.

Overall, blockchain and a decentralized internet is a double edged sword for cybersecurity as it can heavily affect the industry by re-structuring the internet and the way we interact. If in the case that blockchain and a decentralized internet is implemented, existing technologies will have to adapt to the overhaul of an already co-existing system.

How will this affect you?

In your daily life, how will this affect you? What will be different for you? How might this affect members of your family or your friends?

How this can possibly affect me is more diligence when not only interacting with technologies, but the trusted third party that I forfeit my private information. Between Jan 2017 to Jun 2017, a total of 1,901,866,611 of data records were compromised worldwide, companies as large as Gmail, Vertizon, and Sony, were a few of the companies with data breaches of information stolen.

Whilst these companies may have A grade level cybersecurity in place, this shows that every fortified wall has a chip in that can be broken through. Whichever service I use that requires my personal data will I check that the companies/organizations comply with privacy and user data standards.

My family and friends should be aware of the possibilities of cybercrime and incidents that can allow these cybercrimes to happen. Education is key in avoiding these user prone gateways for malware to occur. As malware can impede through downloaded e-mails and software can it also be comparable to accepting a stranger into your own home or opening a suspecting box left upon your doorstep. if possible, malware protection should be in place.

Just like crime happens, in the digital age, these malicious acts come in the form of cybercrime as well. Just like being street smart, does it pay off to also be smart in the way you use your technology, especially if you interacting the other technologies.

As for future job prospects, cybersecurity is going to be of a constant high demand with the growth of technologies, and the emerging of newer tech such as blockchain and a decentralized internet.

Industry Data

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1. What are the job Titles for your group's ideal jobs? How do each of these rank in terms of demand from employers?

- UX/UI Designer - Andrew/Jeremiah
- AR/VR Development - Luc
- Linux Server Administrator - Alec
- Game Programmer - Jimmy
- Senior Python Developer - Artificial Intelligence - Adam

PUT THESE INTO RANKINGS

2. From your group's ideal jobs, you can identify a set of skills required for these jobs (we will refer to this as your group's required skill set). These can be divided into general skills (communication, problem solving, writing etc) and IT-specific skills (Javascript , SQL etc).

Group's Required Skill Set:

- IT-specific skills:
    - Java
    - Javascript
    - LINUX
    - Python
    - Microsoft Windows
    - Microsoft SQL, Exchange, office365
    - Adobe Suite - Photoshop, Illustrator, inDesign
    - AutoCad
    - API design
    - AWS
    - Django
    - HTML5
    - JSON
- General skills:
    - Communication skills
    - Problem solving skills
    - Teamwork/Collaboration skills
    - Relationship building
    - Planning
    - Research
    - Creativity
    - Leadership
    - Presentation Skills
    - Time management
    - Analytical skills
    - Organisation skill

a. How do the IT-specific skills in your required skills set rank in terms of demand from your employers? (Ranked by Skills in Greatest Demand)

- JAVASCRIPT (3rd)
- JAVA (4th)
- Microsoft Windows (5th)
- LINUX (8th)
- Microsoft Office (10th)
- Python (13th)
- HTML5 (15th)
- Adobe Photoshop (26th)
- JSON (32nd)
- Adobe inDesign (36th)
- Microsoft SQL (29th)
- Microsoft exchange (59th)

- Django (66th)
- AWS (68th)
- Adobe Illustrator (86th)
- AUTOCAD(N/A)

b. How do the general skills in your required skill set rank in terms of demand from employers?

- Teamwork/Collaboration skills
- Problem solving skills
- Communication skills
- Presentation skills
- Relationship building
- Organisation skills
- Creativity
- Time management
- Planning
- Analytical skills
- Leadership

c. What are the three highest ranked IT-specific skills which are not in your required skill set?

- PYTHON

d. What are the three highest ranked general skills which are not in your required skill set?

3. Having looked at the Burning Glass data, has your opinion of your ideal job changed? Why/why not

Andrew:
After looking at the Burning Glass data, my opinion on becoming a UX/UI Designer has not changed, this is because there is a sudden increase of UX designers needed as show in May 2017, UX designers were not listed as one of the top IT job titles, and recently in February to March 2018, it had an increase of 281 to 316 active selections and is now one of the top It job titles.

Jimmy:
After observing the Burning Glass data of job positions and qualification, my opinion on my ideal job may have changed. A game programmer is similar to other developer positions, such as a Java developer, where both roles understand the language of Java fluently. Although my ideal job is mainly focused towards game development, I will be able to use the skills of a game programmer in the role of a Java developer. Instead of writing code that helps the game function I can code for any other applications that do not relate to gaming, which will be needed for many companies. A Java developer is also one of the top 10 job positions within the active selections, ranking itself at seventh with 713.

Luc:
Reading the Burning Glass data, opened my eyes more when reviewing the statistics of the skills for my area of interest. Business and project management both have are one of the top 10 active selections for skills employers between 24th December 2017 to 23rd of March of the following year. While software engineering is not the most demanding job in the workforce, this statistic has not strayed my ideal job as an AR/VR developer.

Alec:
Upon reading the Burning Glass data, it seems that there is a decent demand for system Administrators, which do include Server Administrators, displaying an increase of 40 job openings within the span of 2 months (localised to Australia), ultimately being held within the top percentile of IT jobs; which only provides more of an incentive to pursue this career path. Though System Administrators seem to be somewhat more broad, seeing as servers are only a part of the career, it seems I would need to research more into that instead of focusing on a single aspect, but my choice to work in the field of System Administration has not been changed, just altered to be more broad.

Adam:
After seeing the Burning Glass data for jobs, my opinion of my ideal job has not changed, having a somewhat high demand for Python coders, I believe it is still a good skill to have. Although it is not a senior Python developer in demand, taking such jobs requiring Python would lead me into my ideal job of a Python - Artificial Intelligence Developer. However there are many ways of getting into the field of AI as this area of computer science is still growing so my ideal job will probably continuously change throughout this course and my career.

Jeremiah:
Whilst burning glass data provided a great insight into the the progression and demand of each I,T role, this has not altered my opinion on my ideal job. There are varying personalities within I.T that tend to go down specific paths and as UX/UI designer do I feel am I suited for my personality and skill set. UX/UI roles are on the rise considering the data and whilst job markets can be difficult, I'm a firm believer if you have both the necessary skill set, understanding of the role required, and can communicate and market yourself to the employers are you able to find success in acquiring desired role/job.

I.T Professional | Zach Stanford | Cyber Analyst | Deloitte

What kind of work is done by the IT professional?
I help organisations prevent cyber attacks and protect their valuable assets. I monitor client systems for suspicious events or activity and report on the latest cyber threat intelligence. I am also involved with consulting clients to more effectively manage their information and technology risks.

What kinds of people does the IT professional interact with? Are they other IT professionals? Clients? Investors? The general public?
My analyst work involves constant teamwork with my peers and seniors within Deloitte.
As a consultant, I often am in contact with the client at multiple different levels from Chief Information Officers (CIO) or Chief Information Security Officers (CISO) to IT staff and employees.

Where does the IT professional spend most of their time?
I spend most of my time at Deloitte's Cyber Intelligence Center in Sydney. I also occasionally visit clients to consult on their cyber strategy and assess their capabilities.

What aspect of their position is most challenging?
Working in a fast paced environment creates challenges on a day to day basis. By working with different people and their problems, it makes my job interesting and exciting.

How did you transition from your studying to your I.T Profession?

In my penultimate year, I was selected to do a 4 week internship at Deloitte. After my internship I was offered a graduate position to return after I finished my studies. The work and language is very different to university and adjusting took time.

What sort of feedback would you give graduates or studying students?

Try and discover what you can bring to the table that others can't. It is also really important to find something you enjoy and are passionate about to work on.

The project idea:

Overview:

The project is an app for a phone, which can go on Android, iOS, and Windows phones and a pc/mac version. It is an mp3 analyser that can tell the user the bpm of a track, and can split the track into different frequencies for the user so they can hear different instruments and melodies easier.

Motivation:

This project will be useful for anyone requiring music analysation, whether they want it to make a music cover, want to analyse music for their own music, or even use it in music games, which as a level creator, they must know the bpm of the song. For myself, being a beatboxer, it would be so helpful to have such an application as it would help me hear all the different instruments, symphonies, and melodies, so then I could make a song cover easier.

Description:

This app would have different tabs for each feature. Firstly it would connect to the user's music library for phone, or they can select a file on pc/mac. For phone users it would then let them choose an mp3 file as majority of songs are downloaded as mp3 files.PC (PC and Mac) would allow the user to find and select the music file they want (supporting all major sound file types).

After selection of the file it's the same for PC and mobile app. With the exception of layout for the tabs. Once the sound file is chosen the user can then choose to have both the bpm analysed and the frequencies split, or just the bpm analysed, or just the frequencies. For frequency the user can choose which frequency sections they want to split the track into, e.g 125Hz-500Hz, 1kHz-4kHz, 8kHz-16kHz, by inputting numbers into boxes. There would also be a recommended split ratio, and a recommended minimum and maximum.

There will be a progress bar with estimated time remaining for the user to see how it is going. It should only take a few seconds to analyse the bpm, however may take 30+ seconds for the track to split into the frequency ranges depending on how long/how many tracks there are to split into, and how 'fast' the phone is.

Once the analysation is complete the user can then listen to the separate tracks and choose to save it to their device/specified folder if they wish (selecting which tracks they want). The analysation data would be stored in the app folder/except for the track splitting, depending on where the user saved the tracks. This data can then be viewed anytime through the app if they wish.

In the tab would be a list of previously analysed songs which the user can tap/click on and view the data. There would be a small cancel button at the top right which then asks to confirm cancellation of the analysation. There would be a tab which is for the file selection. There is a seek slider for the frequency tracks . The user can select which tracks to play/mute and volume sliders for each track.

Group Reflections:

Andrew:
What went well in NAUGHT was the level of communication that we had within the group, such as who was assigned to which section and problems that occurred and overcame very quickly. There was plenty of discussions and contributions. Another factor that was impressive is that everyone was independent with their assigned tasks and were able to complete their task in time but there was some areas where we could've completed earlier. For example, for the IT Technologies section, those that were assigned to one of the topics finished it relatively quick so that we could move on to the next task.

What could be improved was that maybe we shouldn't have left important sections of the assignment at the end, such as creating the website as coding could get problematic or setting up the Github. One thing that surprised me in this group was the leadership role that Adam took. Adam communicated with each and everyone very well and took control of the assignment which as a result made our group organised. Lastly, something that I have learnt within working in this group was that with great communication skills coming from everyone, you are able to easily complete your tasks and stay organised.

Luc:
This assignment has been a challenging one, with large amounts of time and effort to achieve what we have produced as the final product. At the beginning of this assignment, we discussed and distributed work with ease among the 5 students we had originally. With the addition of another member to our group a couple weeks later, our work would only be further polished. The work we produced and organisation between members is what worked out the best for us, especially with IT technologies, where we had 4 people to research areas of IT and the other 2 to review and improve what we wrote. Communication was surprisingly great as well, setting up a group chat to constantly update changes and remind each other what had to be done. Our time management was our biggest problem. While some started and finished their work early, they could progress with other things as we were waiting on others to finish their parts, but once we had that sorted out, we completed this task without any more dilemmas. We did not utilise the tools of group activity on Github much as we had our group chat to notify us who has done what, which in the end was good.

Alec:
What went well in this team, in my opinion, is how patient they are when it comes down to collaborative efforts within the team. I am never the organised person, so it feels good knowing that my teammates compensate over my incompetency. What could've been improved would probably the work-load spread and members being more vocal if they felt that it was unfair; I only say this because I do not think I did an equal amount of work, though doing and helping around when I was asked to do so/ when I had to. I feel as if there is/was a possibility that some members might have felt as if they were doing too much but were too shy to bring it up to the team. What I was surprised about was how the team functions to work in a fluid matter. If one teammate felt as if they could not/ would not continue their line of work, another teammate would step in and take off where the previous had left; which I

also feel is what I have learnt from a team environment. it is okay to rely on others to take over your work, but it is also expected of you to have a firm understanding of a balance between doing work and giving work, so it does not seem as if you are slacking off.

Jimmy:
The group did well in communicating and doing the required work that was given to each member. Although some members did not show up to the class (when I attended), the group was able to still communicate in an effective manner through other platforms. The tasks given to every member were done well and others helped when it was needed. However, I did enter the group two weeks late, where I only had another two weeks left to do my part in the assignment. I didn't really get to start my work on time, and I felt like I could have done more for the group. The one person in the group that acted as the leader of NAUGHT was Adam, and he worked really hard throughout the assignment. He was able to communicate with every member about their tasks and for their opinions. With this everyone was able to get on task with their work. The one thing that did not really go well was our time management. Some of our work was finished off on the last day which should not be happening, as the last day is for mainly going over the assignment.

Adam:
In this group, distributing the work went well for the most part, communication was good for the first part of the work. However once the people had done their assigned work I felt like they didn't try to help others, communication needs improvement, as even though we made a group chat on facebook, not everyone was contributing to discussion. Whether that's through giving input of ideas or simply answering a question. Organisation should be improved as we still had to finish the entire website on the last day. However most of the other work was done which allowed us to finish our work on time, so again, it is just better communication that is needed. Group commitment should be improved as well, by which I mean making it to the scheduled tutorial class so we can discuss what still needs to be done and have a solid working session with good communication. I understand though that sometimes you can't make it to our intro to I.T tutorials. A couple of things that surprised me was how quickly Luc finished his technology report and that we got a sixth member. One thing I've learned about groups is that most people are busy so it's hard to get everyone to input and respond when you need them to.

Jeremiah:
What I believe worked well within Group Naught was team members being able to complete assigned roles and work for areas of the assignment within a timely manner. Whilst there were varying contributions from the group, each member was able to contribute and complete a major task within the assignment. What I believe could have been improved was communication within the group. Due to work commitments, I was unable to attend a few tutorials, as well as changes within the group which in result changed the work distribution had led to miscommunication of what is to be completed thus leading a lot of last minute/rushed work. What surprised me was Adam's leadership skills, without being prompted did Adam take reigns and glue everything together. What I learnt about Group work is that communication is key to completing a final product, when there are changes should the group re-evaluate considering changed circumstances.

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