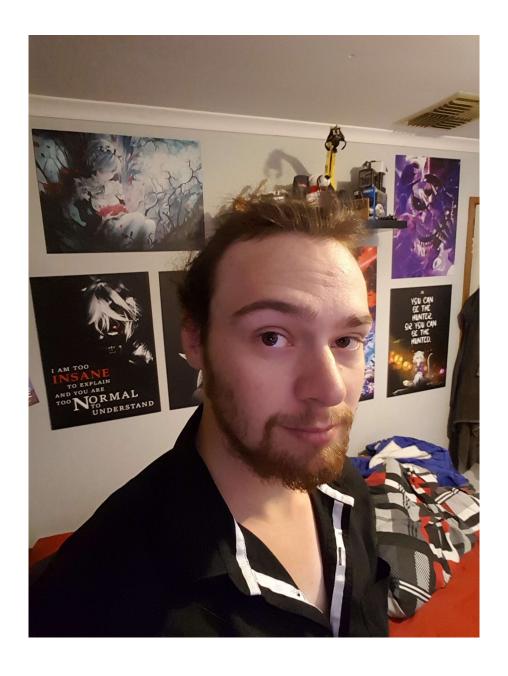
# **Jack P Burgess Personal Profile**

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## **Personal Information:**

Salutations! My name is Jack Philip Burgess, and I am a 21-year-old Australian male. Although my father is Australian, dating all the way back to his ancestors, my mother is British making me the lesser fifty-fifty between the two.



I suppose you can see my combined heritage with my love of cricket and being simultaneously amazing and atrocious at the game. One minute



you go three seasons straight of being the leading wicket taker at the club, and the next you can barely run let alone bowl. I have had serious issues with the tendons in my knees, shin splints and ankles for the past couple years and have become aware of my limitations and count the times where I am able to move like I used to as a blessing.

Cricket is not the only sport I have played however, I have also had my fair share in Tennis, AFL, Badminton, T-ball, Athletics, Swimming and Dota 2. Now I know Dota 2 is an e-sport and might not classify, and I know I never played it professionally or attended serious tournaments, but it was a load of fun to play with my friends from high school. After putting in over 3.2 thousand hours, I finally decided it was time to retire from the game.

I do still enjoy playing some games, even after retiring most of them. Minecraft is a huge example of that, and I think is getting close to as much playtime if not more with the countless weeks of grinding I have put in over the past couple years. I picked it up when it was gaining popularity again and used it as an excuse to try and start my hobby as a Twitch streamer. I would still be doing my usual streams and enjoying the communities I built, manage, and grew but when COVID hit, my internet became too slow and unstable to sustain that lifestyle.

Hanging out on Twitch is how I met my girlfriend. We have been together for 10 months now, completely long distance as she is in England. I have only ever been to England twice myself, both times I was too young to remember. Once when I was a baby to introduce me as the eldest of my generation on my mother's side to her family, and the other a couple years later with my sister for my aunt's wedding. I plan on going up there for a month or two when international travel opens again to stay with my grandfather, catch up with my mother's family, see the sights and hang out with my girlfriend.

I seem to have gone on a bit of a tangent, so I will bring it back with my educational background. I went to the local kindergarten and public school, both of which I was outcast and looked down upon. But where I was lacking in social skills and experience, I made up for with my knack for mathematics, technology and problem solving. It was also in grade 2 I picked up the guitar and joined a choir, later to take lead vocals of the national anthem at assemblies and transfer into the school rock band.

Highschool was the turning point in my life. I managed to get into Kardinia International College and from there began to find a social life and enjoy life. I competed in mathematics, problem solving, language and programming competitions and managed to get a distinction and even high distinction in most of them. It was also the point where I decided to pursue a career in Engineering so was forced to drop I.T. for Upper Level and Specialist Mathematics, Physics and Systems Engineering.



## **Interest in IT:**

IT is in almost everything we use, from cars, to fridges, to phones to video games. So, in a way, I guess I have always been interested in IT. When I was in kindergarten and primary school, I passed my time lounging in front of the television. Had some sports I did ad school, but outside of that, with no friends to run around and play with, I was just admiring the technological advancement which is Foxtel and digital television with my father. My father



used to have a PlayStation and still has his PC that I used to frequently play when I was bored. Games like Spyro, Crash Bandicoot, GTA Vice City and even Solitaire, Minesweeper and Pinball. In primary school I got my first gaming console, an Xbox 360, and would spend a lot of time playing on that by myself, with my brother or my cousin, mostly WWE.

But I guess the first actual time I was interested in technology as more than just something to mindlessly pass the time, would be in grade 5. At this point my school had introduced laptops

and tablets for us to learn on, keep and showed us all sorts of things we could do on them. We made animations, music, movies, wrote assignments and even did some programming on them. It was at this point that an annual student-focussed collaboration was introduced to me called Listen2Learners. A teacher escorted 4 students, including myself, to a weekend-long technology fair in Melbourne that showcased the works of all sorts of students from Primary and Secondary Schools all around the nation.



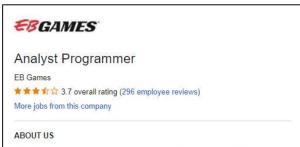
It was at this point I realised how fascinated I was with IT and how much fun I could have with it. After this I did numerous programming courses for languages like Python, C++, CSS, PHP, HTML, Arduino, Lego Technic, etc. and competed in world-wide programming competitions where I consistently managed to finish in the top 10%. I have also made a few animations and short movies to showcase my creative side and have been commissioned to do video editing for some Twitch streamers and Youtubers. During my early education I was also part of and co-head of the student-lead tech-help team, where students would bring their tech problems to us to try and solve before it went on to the real tech-support. I may or may not have also remotely accessed a few of my friend's laptops and play some little pranks like changing their cursor or putting their laptop to sleep.

I chose RMIT because whilst looking around for a University to study Engineering at, I remembered how forward and the high standing RMIT has in tertiary and extended study of technology. I even applied to undertake Engineering there but was declined and resorted to Deakin instead. However, after dropping out of that course, after 2 years, I noticed a computer design, development, and programming course that I could apply for and complete online, and decided it was the perfect course for what I was looking for then.

In my studies, I hope and expect to learn more about the IT world, how it functions and where I can fit into it. I also hope to gain a better understanding of myself, not just my strengths and weaknesses, but what area of work, study and living I enjoy most and find a goal that I want to work towards and put everything I have into achieving and exceeding.

## **Ideal Job:**

My ideal job would be one where I am able to push myself and indulge 100% into what I am doing and reap greater rewards for greater performance. Where the atmosphere is a combination of serious work and fun where you become mates with the people you work with and for. One with a stable income and a stable routine or guide to follow to keep me involved.



Over 20 years EB Games has become one of Australia's leading retailers, but we don't do retail like most companies. Step in to a store, our office or warehouse and the energy and passion is undeniable. With more than 400 locations around Australia and New Zealand, EB Games stores are the home of expert advice, service, iconic gaming and pop culture products.

We work in a dynamic and exciting environment where delivering the best customer experience is at the core of everything we do. We care about our customers, celebrate our wins together and most importantly have fun!

We're known for our amazing people, vibrant culture and exciting career opportunities.

#### THE OPPORTUNITY

As an Analyst Programmer the purpose of your role is to perform analysis and programming duties in the development, implementation and support of information systems and applications. You will be required to develop, test, debug, maintain and document programs and applications.

Primary responsibilities include:

- Working on an agile software development team
- Developing and maintaining internal software applications
- Server-side languages and technologies such as C#, ASP.NET MVC & Web API, SQL
- Front-end languages and technologies such as HTML, CSS, JavaScript, React, Redux, Angular, Svelte

This role will be full-time on a fixed term 12-month contract.

I feel that I have found it within this advertisement posted on seek.com.au by EB Games, a leading retailer in the Australian video game industry. This position offers a 12-month full-time contract within industry, and store, that I have loved since early childhood. It recognises and rewards performance with a "fun and dynamic culture". And even if I feel the need to change or upgrade from here, it comes with "endless career opportunities across EB Games and Zing Pop Culture." The contract entails the analysis of the ever-changing shopping, gaming, and pop culture trends, following them to develop, test, debug, maintain and document programs applications to further progress company.

https://www.seek.com.au/job/51808713?type=standout#se archRequestToken=13cbd144-60eb-4fcf-b9bc-747b6b84d21f

### This position requires:

- Fast learning and problem solving
- Passion within technology and latest trends and tools
- Strong HTML, CSS, and JavaScript experience
- Good knowledge of Object-Oriented development and patterns with C# .NET
- Solid knowledge and experience with Microsoft SQL Server
- Proven experience with Microsoft .NET technologies, such as:
  - Visual Studio
  - ASP.NET MVC
  - Web API
  - .NET Framework
  - o .NET Core

### Following experience would help:

- Experience in an Agile development environment
- Experience with React and Redux JavaScript libraries
- Experience with Test Driven Development and Continuous Integration
- Experience with AWS public cloud
- Exposure to: GIT; Octopus; TeamCity; enterprise networking concepts
- Exposure to development of systems for: Ecommerce; Loyalty programs; ERP and accounting systems; Warehousing

I am already on the right path for this role as I believe I am a fast learner with quick problemsolving skills. My passion for latest technology and gaming related trends is also prominent with most of my spare time being used on social media and streaming platforms watching people play a large variety of games on different platforms and different ways, from competitively speed running a game from 30 years ago, to beating the current favourite game with a ridiculous device, to people just messing around with friends and on their own to enjoy the game. I also have around 3 years of HTML and CSS experience from high school and have designed, developed, tested, debugged and document numerous of my own websites, and was the head beta tester for a new indie company trying to create their first game. During my time in high school, I have also completed a few projects using Visual Studio and throughout all my studies have done collaborative work on designs, development, programming, and documentation, primary to tertiary. My time developing robots and programs from scratch in high school and University has given me experience in an agile development environment, test driven development and continuous integration. The pub I work at currently has its own loyalty system, shared between 2 different places of business, and although I was not there for the development of it, I do know the system, how it works and how it runs.

I am currently learning JavaScript and delving into GIT with my studies, and after these introductory courses can begin my real goal of starting and completing a 3-year computing, design, development, and programming course at RMIT. At the conclusion of these 3 years, I hope to either have a position, as a junior in training, in an industry that can give me experience towards my ideal job or be a freelance programmer as I search for a job offer that can progress me. If in the 3 years at RMIT they do not touch on all the information and skills required for this role, I will spend time after my studies, as a freelance programmer, to find and complete courses to gain the knowledge I am lacking. My freelance work will most likely be done through Fiverr, LinkedIn and other such platforms that allow me to spread who I am, what I know and what I can do to as many people looking to hire someone as possible and trying to do a quick, efficient, and exceptional job, completing all their required points, and divulging their personal thoughts as much as I can to receive high ratings and recommendations.

## **Personal Profile:**

Myers-Briggs test https://www.16personalities.com/freepersonality-test This trait determines how we interact with our environment of the composition of the comp

### Learning style test -

http://www.educationplanner.org/studen ts/self-assessments/learning-stylesguiz.shtml

### What's Your Learning Style? The Results

#### Your Scores:

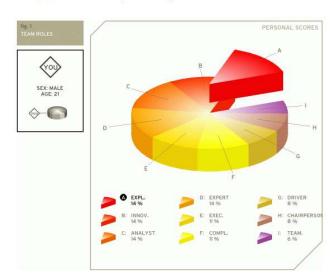
- Auditory: 25%
- Visual: 25%
- Tactile: 50%

You are a Tactile learner! Check out the information below, or view all of the learn

The nine team roles are the Executive, Explorer, Innovator, Analyst, Driver, Chairperson Completer, Team player and Expert.

A total of 100 points are divided over the various roles. A group role can have up to 25  $\,\mathrm{g}$  graph below shows how each team role fits you. After the graph, each team role is explidetail, in the order of its importance to you.

Team roles test https://www.123test.com/team-rolestest/



The Myers-Briggs test states that I am a logical person, more likely and willing to follow a rational, methodical approach to reach my goal with a set out plan, rather than spontaneously 'winging' what I am doing when I get sudden bursts of energy. It also means that I am more focused on getting the job done and what is required, rather than how I or others feel. Being a tactile learner means that I benefit greatly from hands-on learning and creating rather than listening or getting shown something happening. Having my team roles set as an explorer, innovator, analyst and expert, states that I am someone who likes to come up with new, original ideas, work through them my own way, criticise my work and others and get frustrated if someone else tries to take over their way.

These results show that I will probably be quite stubborn and inconsiderate with ideas and group members. However, if a plan is shown to rationally be the best choice will analyse and think ahead of how it will work, and work required for it. It also means that others trying to describe their ideas will have a better chance at getting me to understand and visualise their thoughts with a more hands-on approach, like a model or working through the problem to solution with me. My experience with my own stubbornness and need to control the group' direction, leads me to be more reserved and give my hand as a helper or someone who thinks about ways to improve others initial ideas. However, if I feel that the task being undertaken would be better suited to me completing it alone with a different idea or approach, it will make me get a little frustrated and can lead to a debate starting if someone has strong opinions against my own and we cannot see eye-to-eye.

I should take this into consideration when forming the team by getting to know my fellow group members and designating a leader of the project whose path everyone is okay to follow and build upon and is well respected by the entire group. Trying to avoid any other stubborn people as it could lead to a lot of discourse. Having someone more compassionate to act a team moderator when things get a little heated, taking everyone's views into account and finding a solution that is best for everyone involved, not just a few members. It is also important to find someone with good organisational and scheduling skills to make sure the project runs smoothly, start to finish, and everyone has goals and times to reach that is manageable and they are pleased with. Making sure every member can share at least 2-3 hours a week for a catch up, collaborative work and plans moving forward is also key.

## **Project Idea:**

My project idea is a long distance, self-training, automated ball thrower for dogs. An automated device in which a dog, or person, puts a rubber ball into a feeder. The system would then output a biscuit, or some other form of treat, so the dog is rewarded for returning the ball and is trained to do so. It would then feed the ball into a chamber that would launch the ball with changeable speed and trajectory for different environments.

Everyone has that overly energetic dog that just wants to keep playing when you are just too tired throw the ball. Well at least I do. My Kelpie seems to have an infinite power supply and never understands the word "no" when it comes to playtime. With this device, whether you have a large yard, a small one or go to the park or beach, it is a perfect companion for your pooch wherever they are.

This device will be compact with a rechargeable power supply for easy portability and use plugged in and unplugged. Its ability to be adjusted will come from 2 dials: 1 for the Y-elevation and the other for the power. This interactive system is designed to be as easy and idiot proof as possible and require minimal effort, experience, and knowledge to use to its full ability. The launching mechanism with be a simple spinning wheel system that, to save power, will only run when the ball is loaded and ready to be fired. One the wheel is up to speed, the ball will be fed into it, launching it out of the chamber and the wheel will wind down until it is returned. Although the wheel will be easily adjustable and create its own unpredictability for the ball launch, so the dog cannot just sit and catch it, it also requires more power and can result in motor ware over time. The system will also have a self-training mode where, with a flick of a switch, it will drop a treat into a bowl for the dog to enjoy whenever the ball is put into the feeder. The feeder will be as low to the ground as possible to account for all types of dogs and will have an ultrasound sensor inside it to detect whether the ball is rolled in or not. I have chosen this sensor over others so that the dog does not find a way to trick the system into just outputting treats and requires something, the ball, to be fed in. Once the ball is recognised to have been put in the feeder, a conveyer will turn on, moving the ball from the feeder and feeding it into the wheel once it has gotten up to speed. Having the conveyer only move when the ball is put in for the moment of moving it from feeder to launching chamber will save power and allow use of a stepper motor for precise movements. This automated system will have enough battery life to last at least 30 mins when fully charged, and hopefully, if the extra battery weight is not too much, could be looked to be extended to 45 minutes or even over an hour. This will require testing for the power usage of the entire system, how many battery cells will be needed to last that long and how much it will all weight. The outer casing will be cheap, lightweight but durable plastic to protect the mechanics and electronics it is housing from external damage, like weather or user. To recharge, all that is required is to plug a cable into a standard household power outlet and whilst plugged in, will be able to last continuously. The treats system will use a simple rotating disk with a hole and stepper motor to dispense a small amount of dry dog food as a treat for returning the ball.

Components required for this project are quite basic and the system could be easily mass-produced. The electric components required are:

- An ultrasound sensor to detect the ball.
- 3 stepper motors for the dispenser, conveyer, and gear system to adjust launch pitch.
- A DC motor for the wheel; 2 potentiometers to adjust launch pitch and amplitude.
- A switch to turn self-training mode on and off.
- o A rechargeable power supply with a cable and plug to attach to standard power outlet.
- o CPU to program and run the system, like Arduino or Raspberry Pi.

### The hardware required is:

- Plastic casing to house the system.
- Plastic funnel and tubing for the ball to roll down and launch out of.
- o Lightweight wheel with rubber to grip the ball to launch it.
- o A container to hold dry dog food.
- A bowl to dispense the dry dog food into.
- o A plastic disk to grab a small amount of dog food and dispense it as it rotates.
- A worm gear system to adjust the launch pitch.

The software required depends on the CPU used in the system as different CPUs require different software to be able to communicate with and insert code into to program them.

This project will only require basic systems engineering experience and knowledge. Arduino is a simple CPU to program and run and no overly complicated components or systems are being implemented. The most difficult part that requires the most skill will be cutting the plastic tubes, funnel and disk and assembling everything in the correct place, soldering all the wires and attaching components and debugging and synchronising the code with the rest of the system. Realistically, this project is something basic that can be done in year 8 systems engineering and I believe I have all the required skills and knowledge to complete this project. All that I am missing is the components, hardware, soldering iron and solder.

If this project is successful, it would mean an easy-to-use system for overly energetic dogs to amuse themselves and exercise with as their owners relax. And a system like this, if it can be cheaply made, mass produced and turn a large profit, could be the basis of kickstarting a whole new company or extending the profit margins of one already established. However, that is a very optimistic view and would require creation, testing and implementing first.