

MY PROFILE

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GitHub Repo : <https://github.com/repellent-ghoul/A1>

GitHub Pages: <https://repellent-ghoul.github.io/A1/>



ABOUT ME

I was born in Shepparton. A country town 180km northeast of Melbourne. Shepparton is part of the Goulburn valley and is known for its surrounding orchards and dairy farming. It is also home to the food manufacturer SPC. I come from an Italian background. Which means my love of pizza is strong. I have been a gamer since I was a child and still continue to enjoy games now. I've also been a musician most of my life and played professionally for a number of years. Mostly Spanish/Latin inspired music but also played in metal and rock bands. I've included a picture of Emily (my partner) and myself on our 2018 holiday in Mexico. I like to take holiday photos on an old film camera I have (hence the grainy quality

of the picture). I really enjoy the look of film and it's the one piece of technology in my life that I refuse to upgrade :D

WHY IT?

My interest in IT began when we got our first family computer. I can't remember the hardware specs but I remember it was running windows 95 and we had a copy of Microsoft Dangerous Creatures. My sister and I would spend hours using the program to learn about all the dangerous creatures in the world. There was also a dialogue driven story game that I really enjoyed and that game ignited my passion for video games. Being a gamer has kept me interested in technology and all the latest tech. In my current and previous jobs, I have always been the unofficial tech support. I enjoy troubleshooting problems and find it really rewarding once a solution has been discovered. My main motivation for taking this course would be so that I can land an entry level job in a technical support specialist role. This would be my way into the industry so that I can gain experience and then work towards a development role. I find extended reality(XR) fascinating and would love to discover more about it.

WHY RMIT?

I've always been interested in the development of apps for AR/VR and use of them in the workplace or education. When I saw an article about how RMIT had partnered with Microsoft to develop a course focused on games and graphics programming for mixed reality designers and programers it really got me thinking about going back to study. The opportunity to work with hardware like the hololens is something I'd one day like to do. I think it's exciting to be surrounded by like minded people who share the same interests as me and be inspired even more so by the world of IT. Collaborate with others on interesting, fun and exciting projects.

EXPECTATIONS

I expect to learn the fundamentals of IT and the ways to to begin a career within the industry. Also better insight into what jobs are out there. I feel like while I know a lot of the common jobs available for IT professionals, there are a ton I wouldn't have even thought about. I'm hoping this course will give me a clearer idea of what's available out there and develop my skills accordingly.

MY IDEAL JOB

Senior XR developer (Unity)



Flaim Systems

Melbourne • CBD & Inner Suburbs

Information & Communication Technology • Developers/Programmers

Full Time

Posted 6d ago

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Flaim Systems are looking for a talented and enthusiastic Senior XR developer who is passionate about delivering cutting edge XR experiences with real world applications. You would be joining a small team of 8 developers working across a suite of products based primarily around immersive training in the fire fighting and first responder fields.

Our approach is novel in the training space in that we leverage custom hardware solutions to immerse the trainees in their environment to provide a feel for the real world hardware they will be using.

Your role would be to work on existing products to help extend the feature set and tools, lead and train more junior developers, and depending on your capabilities there are plenty of shaders, DOTS and networking tasks.

The role will initially be remote until we locate a new office space near the CBD at which time the role will switch to on-site and remote.

We offer competitive rates and we don't crunch, we plan effectively.

KEY KNOWLEDGE AND SKILLS NEEDED FOR THE ROLE.

- C# Programming with Unity3D.
- XR knowledge.
- Ability to work autonomously and remotely.
- Enthusiastic about creating cutting edge solutions to real world problems.
- Clear communication and sharing of ideas.
- Ability to provide realistic timeframes for tasks and revise when necessary.

EDUCATION/QUALIFICATIONS

- Computer Science/Games Programming degree or equivalent industry experience.

EXPERIENCE

- At least 4 years in programming/software engineering.
- Demonstrated experience with the Unity game engine.
- Demonstrated experience/skills with C#.
- Demonstrated experience with developing tools within Unity.
- Has delivered completed commercial products.

HIGHLY DESIRABLE

- XR experience across a variety of platforms
- Experience delivering training products
- Cross platform development (mobile/iOS, VR, desktop).
- Technical art experience
- DOTS experience
- Networking/Multiplayer experience
- Unity audio systems

MY INTEREST IN THE JOB

Flaim systems are looking for an experienced XR developer to develop real world applications. They create virtual environments that mimic real world situations for the purpose of training people. I love gaming and I think the use of this technology in the training space is a very exciting concept. The use of a modified Microsoft hololens in the military is what initially sparked my interest in mixed reality. I would like to explore this research and development further and potentially work in developing these types of applications.

SKILLS REQUIRED

Being a senior role they want someone with a lot of experience. The degree doesn't seem to be necessary if the applicant has the relevant experience and portfolio of previous projects they have worked on.

They obviously develop their apps in Unity because they have focused on finding someone who has knowledge and experience with Unity engine and the C# language (which is used in Unity) They also want someone who has worked with extended reality(XR). They also require someone who has completed and released a commercial product. the ability to work without supervision, a passion for this particular kind of work, good communications skills, able to produce within reasonable time frames.

MY EXPERIENCE

I have 10+ years working in customer service with 4 years in managerial/supervisor roles. Below is a list of some skills I have acquired over the years.

- Excellent documentation skills and ability to communicate effectively with technical and non-technical audiences
- Software Troubleshooting & Problem Solving.
- Strong interpersonal skills and the ability to work/learn as part of a team in a challenging and fast paced environment
- Excellent customer service in face-to-face, telephone or electronic interaction with clients, good language and communications skills
- Proficient in Windows & Mac OS operating systems
- Hardware installation and software deployment

MY ROADMAP

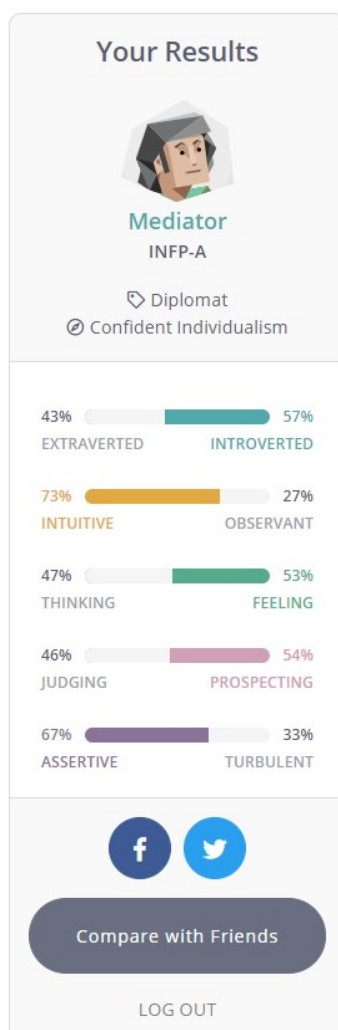
How I play to gain the skills required.

I would spend more time using Unity to develop more games and become a more proficient programmer. I would like to invest in a VR headset and even a Microsoft Hololens one day so I can develop these projects in my spare time. If I could put together a portfolio of the work I have created it would be a good step in the right direction to getting a job in the field.

PERSONAL PROFILE

Test 1: 16 Personalities

MY TAKE



I found this test to be the most comprehensive and the results were surprisingly accurate. The strengths were pretty accurate and I related to a lot of what it said. I'm empathetic and hate the idea of hurting anyone. I can be generous and want to share the good things with the people closest to me. I'm open minded and will never judge anyone on their beliefs or lifestyle. I've always been interested in art, from being a professional musician to painting in my spare time. I'm very passionate about ideas that capture my imagination. Idealistic in the sense that I always try to do the right thing. I always try my best to contribute to society even if it's only in a small way.

My weakness, although hard to swallow, did ring true. I can be unrealistic in my expectations which can leave me feeling disappointment when things fall short. I can be reluctant in putting myself out there and making new friends. I can tend to be unfocused and find it hard to structure my ideas. I can absorb other people's negative moods or attitudes which affect my mood. It can bother me if someone dislikes me and I'll often try and fix the issue. Lastly, and the one that stands out the most for me is being self-critical. I can have unrealistic expectations for myself and when I don't live up to them it can cause me to abandon the project or idea completely.

LEARNING STYLE RESULTS

Solitary Learning Style

You're a solitary learner! You prefer to work alone and use self-study to learn new material. You like to focus your thoughts on the material you are learning and like to assess your thoughts, strengths and weaknesses.

Solitary learners should:

- Set your goals and plans and understand the reason for each goal. Align your goals with your personal beliefs and values.*
- Create a personal interest in your topics.*
- Reflect on personal experiences and feelings in relation to what you are studying. This can help you remember the content and enables faster recall.*
- Create a study space without noise, distraction and interruptions. You tend to be most productive when nothing interferes with your concentration.*
- Keep a journal alongside your materials to help you clarify ideas and concepts. You can use the journal to document your feelings and observations. This may help you find meaning in the work you are studying. If you are open to exchanging ideas online, publishing a web journal may be beneficial.*
- Keep a portfolio – this allows you to reflect on and critique your previous work. Include a self-assessment of the strengths and weaknesses of your work. This will provide insight on areas you can improve on.*

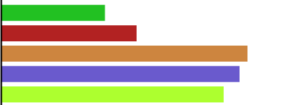
MY TAKE

I don't 100% agree with the results here as I believe depending on the material I'm learning, it can dictate whether or not I would like to do it alone or with other people. I really like to bounce ideas off people and get feedback when it's in a creative environment. I think the tips and advice could be useful for anyone currently studying.

BIG 5 PERSONALITY TEST

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		22
II	Emotional stability		39
III	Agreeableness		67
IV	Conscientiousness		80
V	Intellect/Imagination		46

Big five personality trait scores calculated by openpsychometrics.org

Trait descriptions

[Factor I](#) [Factor II](#) [Factor III](#) [Factor IV](#) [Factor V](#)

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.

Individuals who score high on Factor I one are outgoing and social. Individuals who score low tend to be shut ins.

Trait descriptions

[Factor I](#) [Factor II](#) [Factor III](#) [Factor IV](#) [Factor V](#)

Factor II is labeled as **Emotional Stability**. Factor II is often referred to by other names, such as Neruoticism or Negative Emotionality (in these two cases interpretations are inverted, as Neruoticism and Negative Emotionality can be though of as the opposite of Emotional Stability).

Trait descriptions

[Factor I](#) [Factor II](#) [Factor III](#) [Factor IV](#) [Factor V](#)

Factor III is labeled as **Agreeableness**. A person high in agreeableness is friendly and optimistic. Low scorers are critical and aggressive.

Trait descriptions

[Factor I](#) [Factor II](#) [Factor III](#) [Factor IV](#) [Factor V](#)

Factor IV is labeled as **Conscientiousness**. Individuals who score high on this factor are careful and diligent. Low scorers are impulsive and disorganized.

Trait descriptions

[Factor I](#) [Factor II](#) [Factor III](#) [Factor IV](#) [Factor V](#)

Factor V is labeled as **Intellect/Imagination**. This factor is also often called **Openness to Experience**.

People who score low tend to be traditional and conventional.

MY TAKE

The results here are similar to the 16 personalities test. I was surprised with how extreme factor 1 was. The rest seem pretty inline with the other tests. Perhaps I was in denial with my introverted personality traits. There is some stigma around introverted people and maybe that is the problem.

WHAT THE RESULTS MEAN TO ME

I thought the results were pretty informative and gave a lot of insight into my personality and traits. Having a busy lifestyle, you don't really get the chance to reflect on your own personality or traits so I found it enjoyable to read, even though it did highlight a lot of my weaknesses. I think these tests can shed some light into one's personality, however I also think the results can be vague and relatable to just about everyone. It has definitely given me time to reflect on myself and given me better insight into how my personality might influence my behaviour in a team environment.

HOW WILL THESE RESULTS INFLUENCE MY BEHAVIOUR IN A TEAM

It has made me reflect on certain aspects I recognise in myself and created more awareness of the way I behave. Perhaps when I recognise certain traits (in action) I'll take note of it and try to correct any negative behaviours. It will also make me reinforce positive behaviours I can display.

Mediators value input from everyone and encourage people to share their ideas. I think this is a great benefit to any team.

HOW WILL I USE THIS INFORMATION WHEN FORMING A TEAM

With the information I've learnt from the tests, Ideally I would want to form a team full of people that complement each other's personalities, traits and learning styles.

That would be nice, but in the real world you generally don't get to choose your colleagues or team members. I think all I can do is use the info I've gained about myself and adapt to whatever team environment I may find myself in.

PROJECT IDEA

ICE SCREAM



Concept art. Ice Scream.
Sketch by Adam Maiorana 2021

OVERVIEW

Ice Scream is a 2D platformer developed with Unity. The game is focused around our main protagonist, a frightened ice cream who was accidentally dropped by the local ice cream man and now needs to make it back to the fridge before he melts. The world is a very hostile place for our poor little ice cream. The hot sun is beaming down towards earth and is rapidly melting our hero. In order to survive they must navigate through the environment by conquering increasingly difficult obstacles. They also have to contend with the hungry neighbourhood children and their vicious dogs, who want nothing more than to eat him up.

During this journey they will meet other weird and wonderful characters that could help or hinder our heroes journey back to the safety of the fridge.

Given the scope of the project, I think a realistic goal would be to achieve a playable demo or alpha build rather than a fully developed game that is ready to ship. Demonstrating the games core mechanics and features on a smaller scale. Due to time constraints and our overall skill level, I think this would be the best approach. Free assets are available for the Unity asset store, making development much faster.

MOTIVATION

I love video games and it's always been a goal of mine to develop one from the ground up. It's amazing to see technology come together to create amazing works of art.

I can't think of a more exciting and entertaining way to develop skills as a programmer or artist than to develop a game. The skills you could learn from developing a game could also be interchangeable within the industry. Such as programming, time management, team work etc.

Troncoso (May 2021, para 10) mentions in a recent article posted on Dynamic Business, "Australia's gaming industry was one of the few industries that managed to find success during the pandemic, growing to \$3.4 billion in 2020 – around a 6 per cent jump from the year prior."

Gaming is bigger than it's ever been and ultimately I think game development would be the most rewarding, fun and visually pleasing way to learn how to code.

DESCRIPTION

The main feature of the game would be that it is a 2D platformer. The Player would move from point A to Point B to progress to the level. The player would control the characters movements through the level, avoiding hazards and obstacles with the goal of reaching safety before you melt! The levels would have puzzle-like elements that become harder as you progress to keep them interesting and challenging. The main element of danger would be from the sun's rays. Whenever the character is in direct sunlight, it will damage the player's health. Too much sun and the player will die. That's where shade comes in. Shade would play a big part in the game's mechanics as it would be the only place the player could stand without taking damage from the sun. Shaded areas would be limited to keep the level challenging.

Along with the dangers, there would also be elements in the game that would help the player achieve his goal. For example, collecting ice cubes would slow down the melting mechanic by replenishing the player's health and liquid chocolate would form a protective helmet that would protect the character from the sun's rays or other hazards.

The art style would be colourful and vibrant. The world is filled with bizarre and wonderful characters. Below is a rough sketch of the main character. Giving a good indication of the art style I am trying to achieve.



Concept art. Ice Scream.
Sketch by Adam Maiorana 2021

TOOLS AND TECHNOLOGIES

Unity Editor is the game development software. The engine will be used to create a 2D game. Unity is free when you create a personal or small business account as long as you are not generating over \$100,000 annually.

A PC

The minimum system requirements are not very demanding, however the performance and rendering will rely on your hardware so the better it is the better the smoother the experience.

IDE for creating scripts. I recommend VS code which is free and has the following useful features:

Support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git

Recording DAW

A digital audio workstation to record sound effects and voice overs.

Lots of free options out there like garageband.

Microphones

A good condenser microphone for recording dynamic sounds.

Painting program

Krita is a free open source program that can be used to design artwork for the game.

SKILLS REQUIRED

Because the project is focused on developing a demo, rather than a complete game, I believe with a lot of hard work it could be achieved. A few rough edges are to be expected and usually forgiven in an alpha build and those things can be refined later on.

I already own all the equipment and hardware required to start this project. The biggest hurdle would be time restraints and lack of game development experience. I've outlined below what would be required to get the project off the ground.

The first skill required would be the ability to use Unity Editor. The bulk of the workload would be done in unity so familiarity with the program is a must. Unity has become very popular in the last few years and more and more people are using it.

A basic understanding of C# would be helpful as Unity's scripts are written in C#. However, Unity's asset store has so many free assets available. I honestly think the game could be created with very minimal coding. Assets like player controllers scripts and art packs are readily available for free on the asset store

I have an art style in mind although, the technical ability and resources may be lacking to achieve a professional looking product. However, being an alpha build, I'm not too concerned with the overall look. I want to focus on the game mechanics and make the game feel as enjoyable as possible. Once all the game mechanics are polished and working

well the art work would become the main focus. Placeholder art work could be used during development to speed up the process.

Music production software would also be required if the games music and sound effects were to be created. Otherwise there are free music and sound effects available online.

Writing would also be a desirable skill. A strong narrative would help draw the player in and make them want to explore the world.

OUTCOME

If the project is successful it would lay the groundwork for what could potentially be a fully developed game. The outcome would be a fully functioning 2D platformer game demo with all the game mechanics and features working smoothly. Giving the player a good insight into the direction the game is heading. I hope that this would have a positive impact on my understanding of game development. It could also be very eye opening and expose me to the amount of work and effort required to develop a game in 2 dimensions. My ideal job is to create 3D applications in AR/VR and this project would be a step in the right direction. I also see the project as a very interactive and exciting way to learn.

References

Troncoso, G 2021, *Budget 2021 to finally boost Australia's video games industry*, Dynamic Business, viewed 15 June 2021, <<https://dynamicbusiness.com.au/topics/news/budget-2021-australia-video-games-industry-tax-offset.html>>