3D Industry Report

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Contents: Page:

Introduction: 300 words (159 words)

Within this report there will be discussions surrounding the 3D Industry, particularly in relation to 3D Modelling for Environment and Asset creation. Topics to be covered include the financial differences between working in a studio to working freelance, with the benefits and downfalls to both sections.

To follow will be two case studies about artists working within the industry, one from animation and one from games, in order to cover more of the industry, as the games industry has grown massively and now accounts for a sizable chunk of the industry.

Artists being discussed will be Chris Patrick O'Connell who currently works at Walk Disney Animation Studios and Clinton Crumpler who is more games focused and now owns his own company called Dekogon.

Finally, there will be a discussion in reference to a 5-year plan upon the author leaving university to show the avenues they are to explore within the 3D industry, to suit their journey into the industry.

Section 1: Environment Background Art, Asset Creator, 3D Modeller Introduction 500 words (533 words)

3D artists (Environment) and 3D modellers work using 3D modelling programmes specializing in outdoor or indoor locations, these jobs are seen within: Games, Animation, Interior Design and Architecture.

3D modeller or within that an Asset creator work on building objects who creates three-dimensional models or visuals of items using a variety of different computer software programs and tools. Common programs used are Maya (Modelling and Animation), 3DS Max (Modelling), Mudbox (Sculpting), Blender (Not as good as Maya), Revit (Architecture), AutoCAD (Architecture).

3DS Max and Maya are similar programmes and are viewed differently, Maya is better for animation, with 3DS Max viewed better in terms of modelling. Blender is another program compared to Maya, but Maya is viewed as the stronger out of the two.
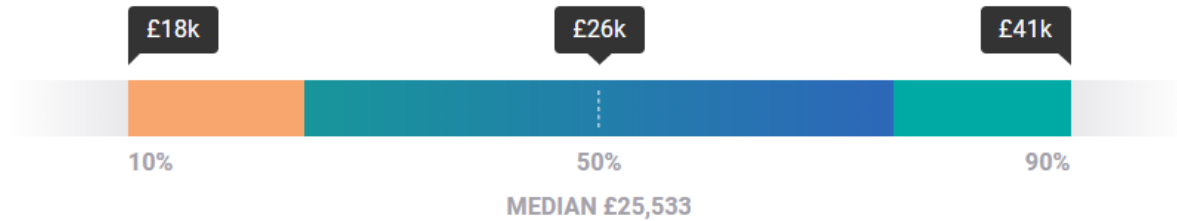
Fig 1. 3D Artist Salary

Fig 2. 3D Artist Freelance Salary

For a **3D artist** working **in industry** in the UK the **average yearly** income would be set at **£26k (£25,533**) (Payscale., 2019.). Alternatively, you can work **freelance** which comes in as an hourly rate of **$28** which converted works out **£ 21.55 hourly**, when calculated at working an average of **25-30 hours per week** that adds up to a yearly average of **£28,015-£33,618**. (ZipRecruiter., 2019.)

Fig 3. 3D Modeller Salary
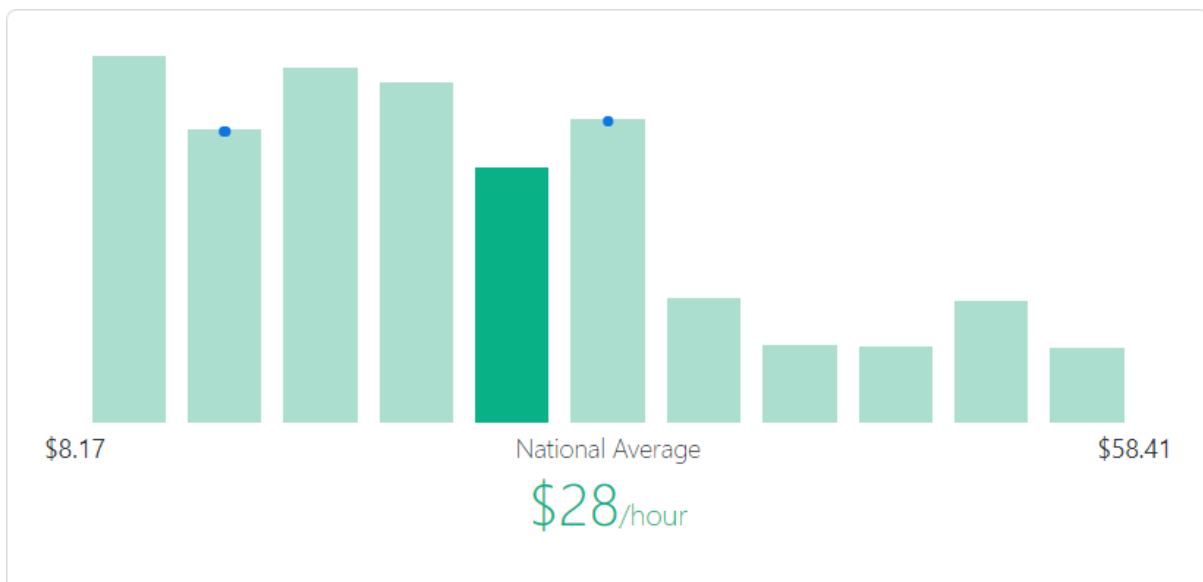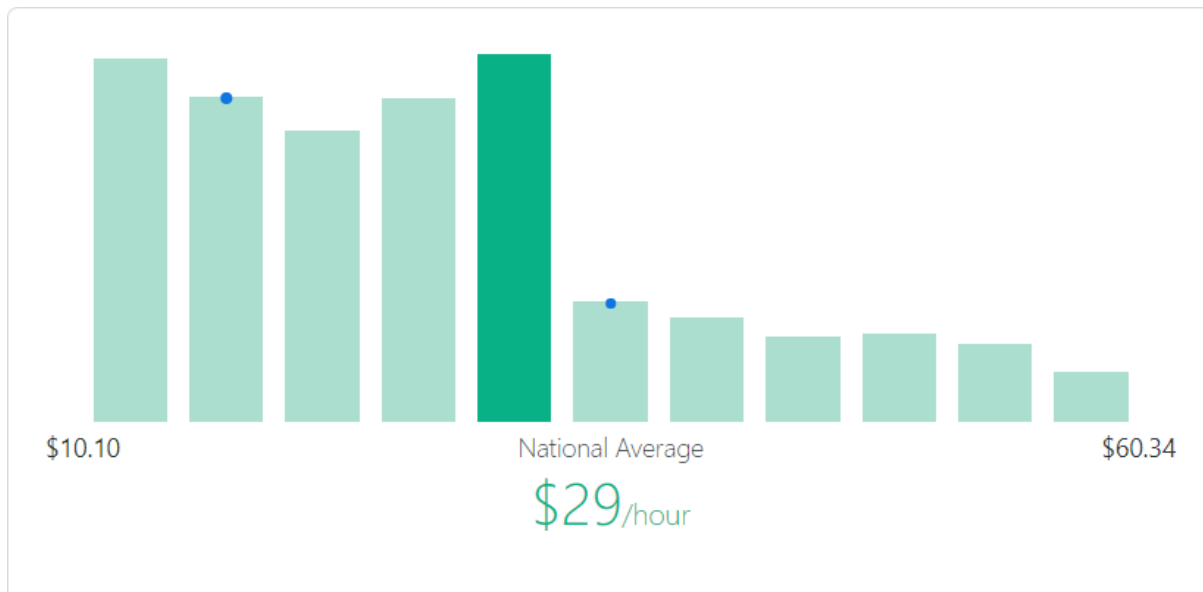

Fig 4. 3D Modeller Freelance Salary

For a **3D Modeller** working **in industry** in the **UK** the **average yearly** income would be set at **£23,940** (Indeed., 2019). Alternatively, you also have the option to work **freelance**, which comes in as an hourly rate of **$29** which converted works out **£ 22.32 hourly**, when calculated at working an average of **25-30 hours per week** that adds up to a yearly average of **£29,016-£33,819**. (ZipRecruiter., 2019.)

From the salary, it would be more beneficial to work freelance as the rate yearly works out higher. However, this is under the impression that you work 25-30 hours per week. There are upsides and downsides to both options depending on who you are as an artist.

The general issue with working freelance is that you can go from working 40-50 hours a week to not working at all as it is a very uncertain position and you are never guaranteed work. In this case the yearly income discussed above could change dramatically depending on how good your year has been.

Working freelance you are essentially your own boss, but this means you are classed as self-employed, so you would have to sort out things like your tax, insurance and general finances on top of trying to gain work for yourself. For example, if you worked 9-5pm on your creative processes you would still end up working extra to sort out finances.

It is often said that working for a company first you gain experience, then people have moved onto freelance when they have built up contacts and experience.

If you worked for a company there are options to progress, for example junior to senior, this would result in a salary increase. The company would also cover your tax and holiday pay. However, you are tied into what the company and your boss has set you, this could be an issue for some and would depend on the size of company you work for.

Section 2: Case Study 1 - Chris Patrick O'Connell (Zootopia, Ralph Breaks the Internet - Environment Modelling Lead at Walt Disney Animation Studios)- 600 words (703 words)

The first case study will be Chris O'Connell, who is currently an Environment Modelling Lead at Walt Disney Animation Studios.

Fig 5. LinkedIn Chris O'Connell

Chris O'Connell has had over 15 years' experience within the industry, he works using 3D or within a 3D modelling environment (LinkedIn., O'Connell, C.P., 2019.)

His education was at the University of Dayton (1988 – 1991) studying a BFA (Bachelor of Fine Arts) in visual comm design. After graduating he then studied at the Rochester Institute of Technology (1996 – 1999) studying his masters (MFA) in Computer Animation.

He started off as a 3D/2D digital artist at Post Central Inc (1999 – 2004) then as a 3D digital artist at Producers Color Service (2000 – 2001) after graduating from Rochester. At Post central Inc he worked within post production creating 3D graphics working with programmes Maya and Photoshop for national, regional and local commercials.

For 7 months (Jul 04-Jan 05) he was at Double Edge Digital as a modeller and texture artist, working on: feature films (Ask the Dust, Sledge: The Story of Frank Sledge) as well as discovery channel series (The Art of War, Waterloo).

Time was spent "Modeled and textured 3D environments" he also "Created photorealistic Previz environments, 3D elements, matte painting, texturing and compositing using Maya, After Effects, Photoshop and Rush Render Que" (LinkedIn., O'Connell, C.P., 2005.)

During 2006-2008 he was a Senior Environment artist at Heavy Iron Studios working on Environment/Prop Modelling and Texturing, Proprietary Game Engine Editing. Working on Wall-E (Senior Environment Artist/Level lead), DemoGame (Environment Artist/Level Lead) and Ratatouille (Environment Artist) for range of devices (Xbox 360, PS3, Wii).
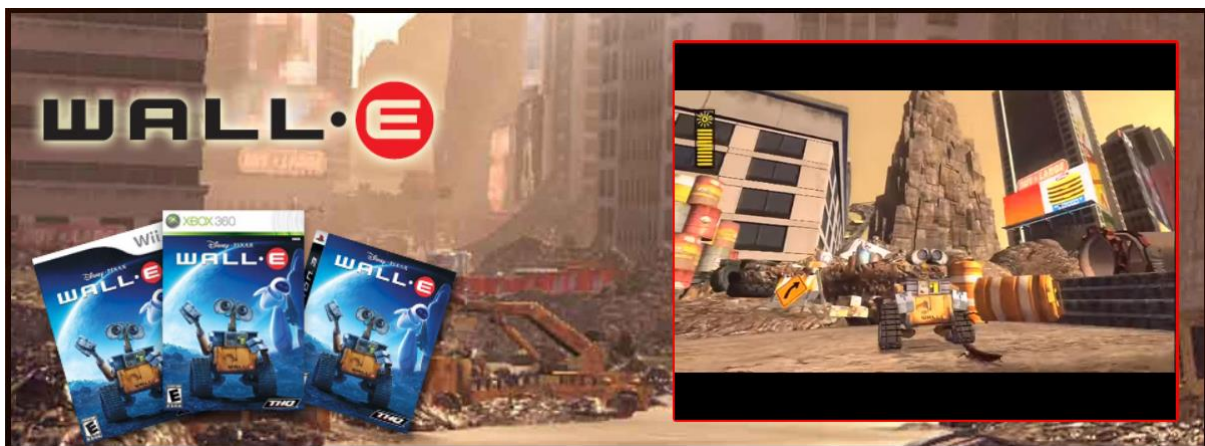
Fig 6. Heavy Iron Studios – Wall-E

During his time here he was "Acting Level Lead responsible for managing and mentoring junior artists and keeping them on track for the production schedule and milestones" as well as completing "Environmental modeling, UV mapping, texturing and lighting" (O'Connell, C.P., 2008.).

Chris moved onto Image Movers Digital which worked alongside Walt Disney Company on a selection of projects, a few mentions where a couple of feature films: A Christmas Carol (2009) & Mars Needs Moms (2011).

Creating High, Med and Low-resolution models with UV mapping for both films. On Christmas Carol he "Also helped with set assembly, set design with art director and

making the sets production ready. Character Finaling duties include fixing shot scene geometry, animation rigs and cache"

On Mars Needs Moms, he was "Specializing in Set/Environment creation, set assembly, set design with art director and making the set production ready. Proprietary Lighting training." (O'Connell, C.P., 2010.)

With 2011 Chris worked at a couple of places first at Hydraulx for (Feb-April) while there he worked as a CG Modeler/Texture Artist on Captain America: The First Avenger. Moving onto MPC Vancouver (April-Nov) as a Senior Modelling TD on Jack the Giant Killer and Sherlock Holmes: A Game of Shadows.

Within 2011 to 2012 he worked at, Sony Pictures (Nov 11-May 12) working as a CG Modeler on Oz: The Great and Powerful. Then at Rhythm and Hues (May-Sept), working on Percy Jackson: Sea of Monsters and R.I.P.D as a Modelling TD.

At this point he secured a job at Walt Disney Animation Studios, currently labelled as an Environment Modelling Lead. Since working here, he has worked on: Frozen, Big Hero 6, Zootopia and Moana as a CG Modeller. Then moving up to an Environment Modelling Lead on Wreck it Ralph 2 and the upcoming Frozen 2.

With Chris being an Environment Modelling Lead he is the "Point person for a team of environment modelers" with his responsibilities in which he "worked with other departments making sure they had what they needed to get their tasks completed. Worked closely with Environment Modeling Supervisor and Layout, while meeting with the Layout artists daily to improve communication and work flow." (O'Connell, C.P., 2019.)

In reference to Disney's aims and general attitude it is believed that "artists invest their time and talent in pursuit of creating entertaining and visually stimulating new environments, and finding ways to communicate the humor, wonder and emotion of that place through visual cues and artistic expression." Doing this correctly would "transport moviegoers someplace new or take a familiar place and give it a fresh and different twist." (DisneyAnimation., 2019.)

Section 3: Case Study 2 – Clinton Crumpler (Gears of War Franchise – Microsoft- Games- Senior Look Development Artist)- 600 Words (680 words)

The second case study will be Clinton Crumpler who is currently a Studio Owner at Dekogon and a Principle Artist at Midwinter Entertainment:
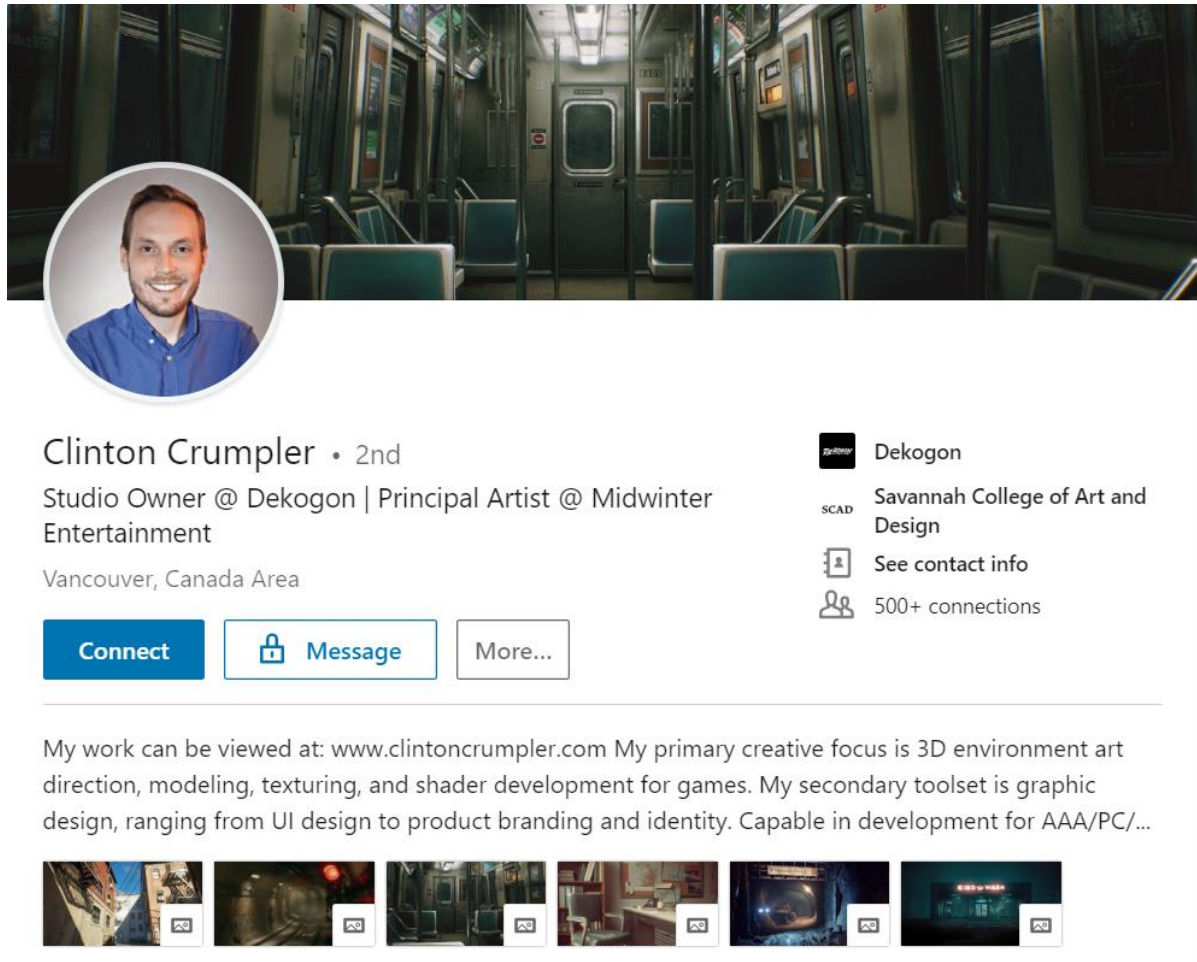
Fig 7. LinkedIn Clinton Crumpler

Clinton has had 7 years' experience working in the industry, his focus is "3D environment art direction, modeling, texturing, and shader development for games". (LinkedIn., Crumpler, C., 2019)

His education involved a BFA (Bachelor of Fine Art) in Graphic Design at Longwood University (2003-2007), this later led him onto Savanna Collage of Art and Design (2008-2010) where he studied a BFA in Animation. After this, still in attendance of Savanna Collage of Art and Design he studied an MFA (Master of Fine Art) in Games and Interactive Media (2010-2012).

He worked as an intern at Microsoft in a collaboration design and research project for the Kinect sponsored by Microsoft Studios through the Savannah College of Art and Design.

His responsibilities included "High / low poly modeling, shader creation, and texturing of environment buildings, landscapes, and props Assisted and collaborated in

design of gameplay mechanics, story beats, and 3D construction workflows." (LinkedIn., C., Crumpler. 2012)

Clintons first major studio role was working on the game series America's Army at SAIC (Proving Ground, Go Army: Edge Sports, and various government and defence projects) as an Art Lead/Environment Artist (2012 – 2013). His responsibilities included "High/Low poly modeling, shader creation, and texturing of environment buildings, landscapes, and props." (LinkedIn., C., Crumpler. 2013)

From 2013 - 2015 he worked in a variety of studios in many different roles. An Environment artist at **KIXEYE** working on an unannounced project in UE4 (Unreal Engine), as a freelance environment artist at **Tuque Games** on **World War Machine**, he then worked as a texture artist at **MekTek Studio** working on PC title - **Heavy Gear: Assault** in UE4. While completing these he was also working as an Instructor at Digital-Tutorials where he "Instructed on the use of game development tools (Zbrush, Maya, Quixel, UDK, UE4, Photoshop, Illustrator)". (LinkedIn., C., Crumpler. 2015)

In august 2016 he became Creative Director and Studio Owner of independent artist collective Dekogon Studios Ltd; he and his studio are responsible for:

• Art direction and management | Establish art quality bar

• Manage 100+ International remote artists

• Marketing, social media, and promotion of brand

(LinkedIn., C., Crumpler. 2019)

While he was setting up his own studio he worked as a Mentor at Think Tank Training Centre and was employed at Microsoft working as a Senior Look Dev Artist/Senior Environment Artist for (Sep 2017 – Jan 2018), working on the **Gears of War** game franchise.

He still works as an instructor for Environment Art Game Development at CGMA (Computer Graphics Master Academy) and as a Principal Environment Artist for Scavengers at Midwinter Entertainment.

Clinton has discussed his process when it comes to completing his art work, he has advice when it comes to getting caught up in your work cycle, with it becoming to repetitive - "switching between structural assets to textures to props can help alleviate the symptoms of too much repetition" going home he will "work on things that are very opposite to what I'm doing at work" this way he is shaking things up and there is always variety.

Clinton discussed getting stuck with technical issues, in which he feels that "No one minds helping someone as long as they show initiative and they are trying to solve the problem or work things out on their own first, before coming to someone else", he means that he will go to others for help and he welcomes this but only if you have showed you have tried to work it out on your own first, to show employers and others that you are not only determined but can show initiative.

While working on a larger projects which may be daunting to some he finds that "taking it one step at a time can really help figure out where you are during the

process" so in this case he recommends to "take it in smaller bitesize chunks compared to looking at the whole and being intimidated" (YouTube., Crumpler, C., 2017.)

Section 4: 5 Year Action Plan - 300 Words (368 words)

During this section, a discussion will happen regarding the authors 5-year plan proceeding university. From this point this section will be discussed in 1st person.

I don't have any plans to work for a specific studio, but I know I would like to work with 3D Modelling for Environments and Asset creation. I have put together a plan which you see below:

Fig 8. 5 Year Plan

In my first year I would like to search for positions, to cover all bases I will be applying for a range, from 3D Modeller to Environment artist and Runner positions. Keeping up my skill set is also an important aspect and I would like to explore other programmes within the 3D environment, this is so I have numerous angles covered to improve my chances with multiple employers.

I feel that keeping my portfolio on my website updated regularly will give me an opportunity to work on my own ideas and keep my skills fresh for new employment. I would like to take the opportunity to visit festivals, so I can see work from others as well as build up my contacts and get my work seen more.

Leading into the second year if I am not offered a position by then I would like to apply for a course, to work on the development of my 3D skills, specialising if possible, in Assets and Environments. I would also like to delve deeper into artists, to see how their paths run and see if I can pick up tips and tricks from them to improve generally.

By my third year I would like to have gained employments as either a Junior 3D Modeller or Junior Environment Artist, with options for night classes where possible to explore other avenues as well as keeping my skills fresh and up to date with the latest technology and programmes.

My aim through years 4 and 5 would be to develop my skillset further, improve and create good impressions as well as looking out for great opportunities to get myself into a senior 3D Modeller or Environment artist position. At this stage I would consider looking into alternative paths such as production, to explore other interests.

Conclusion: 340 words

In conclusion from the financial information gathered working freelance as either a 3D modeller or 3D artist would be more beneficial, however this is providing you can gain employment on a regular basis or your income could drop drastically. There is more freedom in working freelance, but you are working on a more day to basis.

Working in a studio although shows to be earning less, you would be in a more secure position as you will be in contract to a studio and not having to constantly keep an eye out for work opportunities.

In reference to the case studies undertook for two artists, O'Connell has more experience in the industry over Crumpler and currently works in one of the biggest animation studios known worldwide. Crumpler however has managed to set up his own business within 7 years of working within the games industry, which is quite an achievement. They have both gained employment regularly apart from earlier on, once they had a foothold on the industry, both haven't had a gap in employment since then. They have clearly worked hard to get where they both are currently.

Their aims where to create visually stimulating environments, to communicate their visions to the audience. Taking your work step by step is viewed to be more beneficial then taking it all in one go which can be quite daunting. They feel spreading your time out evenly and switching between tasks can help to keep your brain stimulated and be less of repetitive process.

Generally, being able to show initiative, being determined and communicate a clear vision is a step in the right direction.

The authors aim discussed in her 5-year plan is to build up her skillset and progress through the industry to gain employment as a senior 3D Modeller or Environment artist. Taking the plan and process into consideration as well as the research completed throughout this report, keeping up with artists and picking up on tips and tricks will help greatly to start on the path towards this goal.

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Max Word: 2750 words

Notes

Crumpler interview:

Took introductory classes in animation for games there and that was my first experience with the unreal engine, at the time it was unreal engine 3 or also known as ????. After working more and more with the engine and art and architecture, I realised it wasn't so much about the animation that I liked but the modeling texturing and world building that I was really into. That seems to be what kind of brought me to environment art, so my background was found through multiple disciplines but I can firmly say that each of those things I did along the way where definitely helpful in how I create art and how I make any scene I make today. They where essential to establish my styles, my workflows and general approach that I take to all the scenes that I create. Knowing that those kind of graphic design and animation skills definitely helped me to understand multiple parts of the production process and better understand basically how I work by myself or in large groups and just to understand how other artists in multiple disciplines work.

Importance of online presence 11 minsish

Sometimes your working on a project task can definitely arise that are more challenging than others, you'll often find that a particular skillset will often make you kind of a go to for a particular task that comes up during production. For example when I was working on gears of war 4 I was given the task of working on the swarm pots……………As challenging as it seemed at first taking it one step at a time and really planning out how each aspect of the pods interacted with environment, characters, vis effects and overall game play, I was able to make some sound decisions that aloud me to complete the task. Throughout the process there where multiple times I felt stuck technically or visually, this is where the best part about working in larger groups and art teams came into play. With each stumble or issue that arose I was able to talk to other members of the team and not only concur each issue independently but also learn new valuable skills and information about aspects of development that I might not of had the chance to do if I was not taken on such a challenging task. Just thinking about how taking on hard tasks step by step and taking it one step at a time can really help figure out where you are during the process, will kind of help you to reach angles because you can take it in smaller bitesize chunks compared to looking at the whole and being intimidated by the overall task at hand.

Technical issue – "Ask for a few moments of help from a co-worker to help get this resolved"

"No one minds helping someone as long as they show initiative and they are trying to solve the problem or work things out on their own first, before coming to someone else"

At the coalition when getting tasks, I tried to vary it up to make sure I don't get caught on type of asset or production type sometimes switching between structural assets to textures to props can help alleviate the symptoms of too much repetition. Also while at home I tend to work on things that are very opposite to what I'm doing at work just mixing it up during the day and throughout your daily life and routine can help you keep feeling satisfied and overall creatively operative.