

AUT



A FUTURE IN
**ANIMATION,
VISUAL EFFECTS &
GAME DESIGN**



WHAT IS ANIMATION, VISUAL EFFECTS & GAME DESIGN?

The fields of animation, visual effects and game design touch on every corner of our world – whether through the making of movies and games – think Spider-Man: No Way Home, Fortnite, or Arcane – or the use of virtual and augmented reality as engineering, health, education and design tools.

Each year, immersive and interactive experiences created through AR/VR, LED volumes, social media, and mobile applications grow in demand across every sector – and animators, VFX artists, and game designers are at the creative heart of this change.

These creatives use digital production and software tools to visually communicate stories, design

compelling user experiences and visualise data in engaging ways. There is a strong focus on visual storytelling and design thinking, as well as using digital tools to tell stories, communicate ideas, present characters, visualise data, and design interactive and immersive experiences.

Animation, visual effects and game design skills are in high demand in the areas of moving image and interactive and immersive fields, including animation, visual effects, game design, motion graphics, cinematic production, motion capture, and augmented/virtual reality. For example, Wētā FX in Wellington employs many AUT graduates who

have worked on projects like Gemini Man, The Tomorrow War, and Game of Thrones.

Digital creatives commonly work on projects that require a broad range of skills, such as the ability to combine digital elements into cinematic production, or to create 3D animation and code interactive events within a game or virtual reality experience.

Are you visually creative and software savvy? Are you a problem solver? Are you technologically adventurous? Do you want to use your creative and technological skills to solve problems for creative or social enterprises? If so, a career in animation, visual effects or game design may be the thing for you.

OUTLOOK AND TRENDS

Invention, reinvention, innovation

The move is away from a 'jobs' paradigm to one of invention, reinvention and innovation and entrepreneurship. This requires new forms of collaboration and community activism (community being any group you might identify with as a vehicle for changing the world, creating beauty, telling stories etc). Influencers and disruptors are the new norm.

Source: Toybox

Gamification of Augmented Reality and Virtual Reality expanding

User experiences in AR and VR are expanding beyond entertainment into areas as diverse as medical and health education and training, future learning applications, data visualisation (science data, communication of science for education and health services delivery), architecture, tourism, heritage and museum and art gallery experiences. This area of 'serious gaming' products requires animators, VFX artists, and game designers.

Digital advertising shifts

There is a big shift by advertising away from traditional formats, such as broadcast TV commercials, set duration online media, printed billboards etc. Instead there is strong interest in customised or tailored content that can be directly targeted to specific audiences as opposed to advertisers buying bulk media placements. There is also a rising demand for VR and AR content and installation advertising or real time advertising.

Source: Fluxmedia

Overcoming lack of full-time experience

Game design is a very young industry and employers struggle to find employees with high end skills and industry experience in NZ. Employers want to see boldness, a unique voice and evidence of collaboration with other artists, designers and technologists and story tellers.

Source: Staples VR, Virtual Reality

Competitive animation environment

Landing a placement or position in an animation company is difficult because there are not many animation companies in New Zealand. Generalists are more appealing than specialists unless you have a spectacular skill set. Graduates need to stand out from their peers by producing work outside of the curriculum and producing faultless and creative reels and CVs. Once in the workplace, graduates need to quickly adapt to creative expectations, multi-tasking and delivery timelines and continue to train and upskill.

Source: Fluxmedia

WORK SETTINGS

Skills in animation, VFX and game design can lead to a variety of work settings. You could work for:

Large companies with international reputations and huge teams working on big budget Hollywood productions (eg Wētā FX) as VFX artists, animators, motion capture artists, or technical directors specialising in rigging, lighting, or compositing.

Local animation companies, such as Flux Animation, on a range of local and international projects for commercial, TV and film ventures.

Advertising agencies that range in size and need skills in animation, visual effects, post production and design for motion graphics, TV commercials, web/online/social media content/apps.

Gaming studios, including boutique studios that design games for industries that include education and social enterprise, as well as entertainment.

Freelancing – a common employment option drawing on specialist skill sets. Involves undertaking project driven contract work for any of the above organisations.

CAREER SECTOR OPPORTUNITIES

You could find employment with a large company in a specialist role, join a smaller company or initiate a start-up that will require you to be more of a generalist. The roles below show the range of entry level possibilities within each industry.

Animation and visual effects industry

- Animator – working as a character/creature animator on film, TV, or streaming productions
- Motion capture artist – working in MoCap production and postproduction to retarget live performances onto digital characters, as well as motion-editing
- Composer – working in film and TV postproduction to extract and combine digital elements

Advertising industry

- Motion graphics artist for advertising campaigns, commercials, social media content, and title sequences
- Media production assistant for television and online ad campaigns, including editing, motion graphics, web integration, and VR/AR projects

Film industry

- Camera department – working on production sets and locations, collecting data for VFX integration
- Editor – working in film postproduction editing

Gaming industry

- Animator/modeller for characters, locations, and props
- Game designer (senior position in a company, or your position in a start-up)
- Game concept artist for character and environment design
- Coder for game engines

Media production companies

- Animation, VFX and interactive design for a range of media, including video displays, projection mapping, live video projection, fashion shows, trade shows, public screens, art galleries/festivals and more

Virtual Reality companies (usually small start ups)

- VR game and interaction design, 3D animation, animation, video production/postproduction

SALARY GUIDE EXAMPLES

Pay rates are impacted firstly by experience and then according to location, size of company and status of clients. The sky could be the limit after five or six years if you become highly skilled.

3D animator/ digital artist	\$45,000-\$150,000pa, depending on level and experience
3D artist	\$49,000-\$100,000pa, depending on level and experience
Game developer	\$45,000-\$80,000pa, depending on level and experience
VFX artist	\$55,000-\$135,000pa, depending on level and experience
VR director	\$1,500-\$2,000 per day (job-by-job basis)

Sources: payscale.com, Greendoor, CareersNZ, Toybox, ERI Assessor Series

The salaries above are indicative of the New Zealand job market at the time of publication (mid 2022) and should only be used as a guide.

SKILLS AND KNOWLEDGE

Animation

- 3D animation software – Autodesk Maya, Pixologic ZBrush, Adobe Substance Painter
- 2D animation and editing software – Krita, TVPaint Animation, Adobe After Effects, Adobe Premiere Pro

Visual effects

- Editing, compositing, and cinematography for visual effects, including green screen keying
- Visual effects software – Adobe After Effects, DaVinci Resolve, The Foundry Nuke, Houdini, SynthEyes
- Video editing software – Adobe Premiere

Game design and Virtual/Augmented Reality

- Game design and coding (primarily C#)
- Game engine software – Unity 3D, Unreal Engine 3D
- Animation software – Autodesk Maya
- Augmented Reality software – Vuforia

Motion capture (used in all of the above disciplines)

- MoCap artist – record motion/performance capture, MoCap data clean-up and retargeting, motion editing, 3D animation
- MoCap software – Autodesk MotionBuilder, Autodesk Maya, Motion Analysis Cortex, Faceware Analyzer, Faceware Retargeter

PERSONAL QUALITIES

- Good communicator
- Flexible and self-motivated learner
- Future-focused and innovative
- Technologically adventurous and savvy
- A problem-solver and proactive trouble shooter
- Excellent team skills
- Strong technical and artistic skills
- Excellent design thinking skills
- Creative visual story teller

AUT ADVANTAGE

The Animation, Visual Effects and Game Design major is part of the Te Tohu Paetahi mō te Hoahoa – Bachelor of Design, taught through the AUT School of Art & Design, which consistently ranks as one of the top global art and design schools.

Our students develop innovative digital practices by accessing the latest hardware, software, and expert facilities, including the AUT Motion Capture Studio, the green screen studio, virtual reality lab, stop-motion animation studio, and more.

We foster a strong focus on visual storytelling by using digital tools to effectively tell stories, communicate ideas, craft characters, visualise data, and design compelling interactive/immersive experiences. Practical work experience with both academic and industry projects often lead to job placement.

AUT has the most robust motion capture facilities and dedicated curriculum among universities in NZ.

FURTHER STUDY OPTIONS

Ideally, students studying the Animation, Visual Effects and Game Design major should plan to complete a master's degree to open up job opportunities locally and overseas. Its flexibility allows students to study full-time or part-time while working.

Past research projects include a virtual reality experience of Antarctica in collaboration with the Antarctic Heritage Trust, a 3D interactive diagnostic and patient experience tool (Virtual Eye) in collaboration with the Auckland University School of Optometry, and a virtual reality 3D interior space design tool for improving patient experience and workflow.



Reuben Terehu Shortland

3D Animator, Metia Interactive
Bachelor of Design in Digital Design*

“As a 3D animator for Metia Interactive I help create and manage animation sequences for our many game characters. Such animations are made from scratch with manual keyframing, or through utilising our library of detailed motion capture data which is often recorded at AUT’s MoCap studio.

The core of my role is using animation principles, theatrical contextualization, and cultural authenticity to create necessary and aesthetically pleasing motions for either a cinematic or game environment.

No week at Metia is ever the same. I can be 3D modelling, UV mapping, rigging characters or making Shaders at any given time. The majority of my time involves working closely with animation sequences that need to be created or improved to fit their purpose – anything from a game-centric series of motions to drive a locomotion system,

through to elaborate sequences that capitalise on visual spectacle for social media posts and promotional material.

You need to be your own constructive critic until there is sufficient satisfaction in the work you create. You also need to strive to create important networking connections that matter to your work.

Metia Interactive is a video game development company run by a Māori director, with Māori involved in a narrative and artistic capacity.

Founder Maru Nihoniho, one of the few leading wahine Māori in the industry, helps bring authenticity to the stories of Māoritanga. Metia Interactive was born out of the injustice of a lack of Māori representation in digital media, striving to bring the traditions of old to indigenous youth through exciting new digital languages.”

* The Bachelor of Design in Digital Design is now called Te Tohu Paetahi mō te Hoahoa – Bachelor of Design in Animation, Visual Effects and Game Design

EMPLOYER COMMENT

“Apart from looking at technical skills, I look for motivated people, with a passion for game development and willing to learn. Being a team player is key as you need to work with others constantly in making games. I also look for people that will be a great fit for our studio culture.

From the start I could see Reuben’s motivation and eagerness to learn and upskill. He wasn’t just animating but also learning and using the tools in the Unreal Engine to get his work into the game environment. He

translates his tasks into practical workflow steps between the animation and game development processes.

A graduate needs to know what they want to do in the industry and focus on creating a CV or portfolio that states that clearly. There are a lot of different roles, some generalist and others very specific. It’s about knowing what you want to do and seeing where you could potentially fit, not just within a role but within the company itself.”

Metia Interactive founder – Maru Nihoniho

USEFUL WEBSITES

Wētā FX

careers.wetafx.co.nz

NZ Game Developers Association

www.nzgda.com

Screen Production Directory

www.databook.co.nz

The Big Idea

www.thebigidea.nz/work

FURTHER INFORMATION

For the most up-to-date information on studying animation, visual effects and game design, visit our website:

www.aut.ac.nz/animation-visual-effects-gamedesign

EMPLOYABILITY & CAREERS

For other Future Career Sheets visit:

www.aut.ac.nz/careersheets


For employability and career support, AUT students can book an appointment through

<https://elab.aut.ac.nz/>

FUTURE STUDENTS

Contact the Future Student Advisory team for more information: www.aut.ac.nz/enquire

futurestudents@aut.ac.nz


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Contact the Student Hub Advisors team for more information: 0800 AUT UNI (0800 288 864)

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The information contained in this career sheet is correct at time of printing, mid 2022.

