UTS Animal Logic Academy

In collaboration with Netflix Animation Studios

Master of Animation and Visualisation Specialisation and Portfolio Guide

Welcome to the ‘Specialisation and Portfolio Guide’ for the Master of Animation and Visualisation. This guide is designed to help you navigate the application process by providing information on nominating a specialisation and preparing your portfolio.

To ensure your application meets our admission requirements, this guide includes:

- Guidance on **nominating one specialisation** for your application.
- Advice to help you **choose the right specialisation** for your skills and career goals.
- Detailed sections for each **available specialisation**, including specific portfolio requirements and tips for showcasing your work.
- Information on **portfolio formats** and **practical advice** for presenting your work effectively.
- **Contact details** if you have questions or need further support.

We strongly recommend carefully reviewing both this guide and the full **Course Guide**, before submitting your application to ensure your portfolio and specialisation selection meet the admission requirements.

Nominate a Specialisation

As part of the admission requirements for the Master of Animation and Visualisation, you must nominate **one** specialisation within 3D animation or visual effects production.

The available specialisations include:

- Art Department
- Pre-Visualisation / Layout
- Modelling
- Rigging
- Animation (3D only, no 2D)
- Effects (FX)
- Surfacing
- Lighting
- Compositing
- Technical Direction
- Production Management

It is recommended that you clearly specify your nominated specialisation in your **Curriculum Vitae (CV)** and **Portfolio**.

Choosing a Specialisation

At the Academy, we accelerate your entry into industry by developing your existing skills in specific areas of 3D animation and/or visual effects production.

Rather than teaching specialisations from scratch, our postgraduate course intends to build on the foundational knowledge and skills you have from undergraduate studies.

If you're unsure which specialisation is right for you, follow these steps to help guide your decision:

1. **Review your current skill set and portfolio** - identify which areas best align with the specialisations offered.
2. **Think about your career goals** - consider the type of role you would like in an animation or visual effects studio.
3. **Decide on your area of focus** - choose a specialisation that aligns with both your interests and career aspirations.
4. **Assess strengths in your current work** - identify which areas of your portfolio best showcase your abilities.
5. **Identify gaps in your portfolio** - use the portfolio advice listed for each specialisation to determine areas that need development.
6. **Complete recommended tasks** - refine your skills and add work to your portfolio that aligns with your chosen specialisation.
7. **Seek feedback** - book a one-on-one consultation with our Academy staff to receive guidance and advice on your specialised portfolio before submitting your application.

Specialisation Guidance

The following sections provide detailed information for each available specialisation, including:

- **An overview of the specialisation** and the skills it focuses on.
- **Portfolio requirements** specific to that area, outlining the works you must include.
- **Tips and advice** to help you present your work effectively.

We encourage you to review the section for your nominated specialisation carefully. By understanding what is expected, you can prepare a portfolio that clearly demonstrates your strengths in your chosen specialisation and ensure it meets the admission requirements.

IMPORTANT: For your portfolio submission, you must include the required works listed under the '**What to Include in Your Portfolio**' section for your nominated specialisation. Please refer to the 'What to include in your portfolio' subheading on the corresponding specialisation page.

Art Department

Creating the visual look for the project

The Art Department takes the story idea and creates the visual look of the project. This includes developing concept art, characters, props, environments, storyboards, colour keys and scripts. This can also include 2D storyboard animatics to visualise the flow of the film.

Applicants to the Art Department should have an understanding of the art fundamentals of anatomy, perspective, form and structure, light and shadow, colour theory and composition.

This specialisation would be a good fit for people with a strong sense of visual design, storytelling and creativity. They should enjoy drawing, painting, and creating detailed concept art and designs.

Please note, although not compulsory, we encourage our Art Department students to transition into the Lighting Department towards the end of the production. This not only helps with completing the student projects, but also allows Art students to learn additional skills to take into industry (with many Art students choosing to continue to pursue Lighting when they start their careers).

What to include in your portfolio

- Traditional art
- Character art
- Environment art
- Prop and vehicle concepts
- Life drawing
- Storyboards

Portfolio Tips

- We are looking for variety, so we want to see it all: your scribbles, your paintings, your designs, etc.
- You should also make sure to feature a variety of subject matter in your work. If you love drawing dragons, that's great! But also show us what else you can do.
- Make sure that you show us a range of artistic styles (for example, beyond just Manga).

- You can also include any ‘work in progress’ for final pieces if you have it, as it’s great to see the thought process behind your work.

Pre-visualisation / Layout

Bringing the elements together to visualise the story

Pre-visualisation (or Previs) is the process of visualising the movie before creating it. Previs artists start with a 2D storyboard from the Art Department and then work out how to visualise it in 3D (taking the form of an early-stage 3D animatic of a scene and/or scenes). This includes decisions about framing, lensing and camera movement, providing the whole production with an initial idea of what each shot will look like.

Layout is the second part of the lensing process, which focuses solely on digital cinematography – how the camera will work with the animation performance for each shot.

It's a fast moving department, focused on testing and getting an idea on screen as quickly as possible to see if it will work. Previs and Layout artists need to have a decent working knowledge of Maya, including basic modelling and animation skills.

This specialisation will suit people who are storytellers, and who may enjoy directing, cinematography or photography

What to include in your portfolio

- Examples of both basic 3D animation and modelling skills

Refer to the Animation and Modelling sections for advice on what work you can include for these specialisations.

Portfolio Tips

- If you want to push it further, try copying a storyboard to 3D or copying a scene from a movie in 3D. We recommend keeping this to 10-20 seconds maximum.

  With this task, we're looking to see if you can copy a camera move from something and translate it into a 3D environment.

Modelling

Creating detailed and high-functioning 3D computer graphics models

The Modelling Department is responsible for taking the designs created by the Art Department and turning them into 3D greyscale models (assets). This includes characters, environments and props, and can cover both organic (e.g. rocks, trees, etc.) and hard surface (e.g. chairs, robots, cars, etc.) modelling, as well as procedural modelling and machine-learning-driven techniques.

The most important thing to know when applying for the Modelling Department is that it is all about topology (the distribution and structure of vertices, edges and faces of a 3D model). The topology shows how well your 3D model is organised. The better everything is done, the easier and faster it will be for other departments to work with.

Modelling is a great choice for people who enjoy both the creative and technical side of 3D production. It combines artistic skills, such as form and anatomy, with knowledge of 3D modelling tools and processes.

What to include in your portfolio

- Hard surface models
- Organic models
- Environment models
- Asset/Prop models

Portfolio Tips

- Most importantly, we want to see greyscale topology images.
- Preferably you will be proficient in Maya, as this is the industry standard. However, we are happy to see work done in other software packages (e.g. Blender, 3ds Max).
- We expect models to be able to be subdivided correctly. Add subdivisions in your modelling software package to make sure it still holds its shape.
- Think about the flow of your edge loops. Topology is very important. Consider things like density for detailing and if it will be used for animation.
- Make sure you have “wireframe on shaded” turned on so we can see the topology clearly.
- You can present your work as either static images and/or turntables.
- If you like, you can also send us your Maya (.ma) files so we can take a look at them.

- Please note, ZBrush sculpts should be presented retopologised with quads in Maya, not just the raw sculpt.

Rigging

Building the digital skeleton and controls of the models

Once the models are constructed, they need to be rigged to prepare them to be animated. Rigging is responsible for creating the rig, which is essentially an interactive skeleton inside the 3D modelled asset. This involves setting up a system of joints, bones, and controllers that animators can manipulate to pose and animate the model.

Rigging is crucial for achieving believable movement and expressions, as it defines how a character or object deforms and reacts to various actions, such as walking, jumping, or talking. This process requires a deep understanding of anatomy, mechanics, and the specific requirements of the animation project.

This specialisation suits individuals who have a strong technical aptitude and an interest in both art and engineering. They should enjoy problem solving, as rigging is a good blend of creative and technical skills.

What to include in your portfolio

- Body rig
- Facial rig
- Hand or a foot / leg rig
- Prop rig

Portfolio Tips

- Include examples of anything you've rigged, as well as the control rig/system. We ultimately want to see how you've done it and how it's controlled.
- Note - we only work on and want to see 3D rigs, not 2D rigs.
- Something as simple as a well-executed leg rig with a foot that works perfectly (roll and twist) is more than enough to show us.
- There's no need to create a complex muscle system or face rig as well (although we'd love to see it if you did!), something simple that is clean and works well is often more important.
- You can either send us a video of your working rig, or you can send us the Maya (.ma) file. Note - the industry standard software is Maya.

Animation

Creating the performance

Animation is the creation of performance from rigged models. More than just a walk cycle, great animation also includes the expression of emotion through facial animation and physical gestures.

A strong understanding of animation principles is necessary, such as timing, weight, physics, secondary, overlap and appeal. An eye for detail and a solid grasp of movement and anatomy are also crucial for creating realistic animations.

Specialising in Animation would suit those who have a keen eye for movement and timing. They should enjoy bringing characters to life through motion, performance and acting.

What to include in your portfolio

- Biped walk cycle
- Quadruped walk cycle
- Bouncing ball
- Performance animation

Portfolio Tips

- We specialise in 3D animation (not 2D animation) so focus on showcasing a variety of 3D animations that demonstrate your range, including character animations, walk cycles, facial expressions, and any dynamic or complex movements.
- Highlight your strongest work first, ensure smooth transitions between clips, and include only your best and most polished projects.
- For any examples of performance animation, we recommend using a 3-4 second piece of dialogue from a film or something else you enjoy, animated to camera and generally as a mid-shot to show your performance or acting ability with characters.
- We'd really just like to see a few simple pieces (these do not need to be rendered, lit or in an environment). A playblast from Maya is fine.
- There are a lot of great free characters available online that you can use to create your portfolio work.
- Ideally all work should be completed in Maya, as this is the industry standard. While you can submit work created with other software, please note that we solely use

Maya when animating at the Academy. We suggest having at least a basic skill set in Maya before entering the course.

Effects (FX)

Adding the visual effects simulations

Effects (FX) is responsible for enhancing the visual impact of animated and live action projects, making scenes more immersive and captivating.

This requires creating realistic and visually engaging 3D elements such as magical particles, elemental simulations (e.g. smoke, sparks, liquids, fire, explosions, snow, rain, oceans, dust, etc.), destruction simulations, procedural environments, character effects (e.g. cloth, fur, skin and muscle simulations), holograms and much more.

This specialisation combines technical skills like scripting, problem-solving, procedural modelling and animation, with artistic flair and strong observation skills to achieve photoreal or stylised results.

With a strong focus on FX simulations, FX artists are also proficient in shading, rendering, and compositing.

Houdini is the Academy's preferred software for the FX discipline and the current industry standard. Students joining the FX team will be trained on this software.

The Academy is a Certified Houdini Training Centre.

What to include in your portfolio

- Procedural modelling/animation
- Particle simulations
- Rigid Body simulations
- Fluid simulations (e.g. pyro and/or liquid)
- Character FX (e.g. fur, clothes, etc.)

Portfolio Tips

- Show a variety of effects. These can be fully rendered shots or playblasts.
- If replicating a tutorial, you need to make it your own – use the knowledge creatively and demonstrate that you can adapt what you have learned for your own practice.
- Make sure to add references as a picture in-picture insert when relevant.

- If you are new to Houdini: a free version is available on sidefx.com, along with free tutorials to get you up to speed.

Surfacing

Creating the surfaces and textures for the models

Surfacing is the process of taking the grey-shaded 3D models from Modelling and working out how those objects will look when we see them with lighting.

Here, detailed textures and patterns are produced that wrap onto the surface of the 3D models to create the right look for each asset, whether photorealistic or stylised.

There's a lot of storytelling that happens in Surfacing (referred to as 'Environmental Storytelling'), whereby you help show how an asset has been used and, in doing so, help tell the audience the life story of the model – often taking a simple asset and transforming it into something that can help elevate the story.

This is a great role for anyone who is a 2D artist with an interest in 3D, as it's about bringing life to the 3D modelled assets.

What to include in your portfolio

- Hard surface and organic objects
- Realistic and stylised shading styles
- A mix of object types: characters, environments and props

Portfolio Tips

- We suggest presenting your assets in a turntable format with lighting that shows off the qualities of the shaders.
- While we currently use Mari to do our Surfacing, we are happy to look at work created in other software packages (e.g. Blender, Adobe Substance).
- We primarily want to see your skill set – we can teach you the software, it's more about showing us what you can do.
- Surfacing breakdowns showing the different maps used is also useful to show, but not necessary.

Lighting

Designing the lighting within 3D shots and scenes

Lighting artists define the look of each shot, highlighting the action, characters and emotion through the use of light and shadows. This is an exciting stage in any production, as it is typically the first time you start to see all the work completed by the different specialisations come together.

Lighting is both creative and technical, as it encompasses areas including cinematography and colour theory, as well as a knowledge of efficient workflows and data management.

This is a great role for a variety of artists including:

- Individuals with photography and film experience, as cinematography knowledge can contribute to being a successful lighter.
- Technical people who like a creative outlet - there can be a lot of tool building and optimisation work in addition to the creative process.
- Anyone who is a 2D artist who also has an interest in 3D, as it's about bringing storytelling to scenes through light and colour.

What to include in your portfolio

- A variety of lighting scenarios:
- Day
- Night
- Natural
- Practical
- Characters
- Environments

Portfolio Tips

- Your work can be presented as full CG shots and/or as shots showing CG elements you've lit and integrated into live action comps.
- Your work can be in the form of still images. Just make sure it demonstrates that you have an understanding of how light moves in the natural world, and that you can translate it into CG (preferably showing multiple angles of a scene).

- Lighting can be from real time or pre-rendered software. However, we understand that Katana and Renderman aren't usually taught in undergraduate degree programs.

  While we recommend having some experience using a node-based lighting software, it is not a necessity. Instead, your portfolio should focus on demonstrating the principles of lighting, rather than an understanding of the technology.

Compositing

Bringing everything together to create final shots

Compositing is the process of combining the rendered frames from all other departments into one final composited scene. This department has the job of ensuring that everything fits together well, including the form, colour and depth of the final image.

Compositing is also the end of the road for any production, being the last department when things are added or changed.

Compositors need to have a great eye for detail and a drive for visual perfection, which makes this a great role for a variety of artists, who may come from filmmaking and traditional 2D art backgrounds.

What to include in your portfolio

- Full CG composited shots
- Any live action composited shots, demonstrating CG element integration
- Matte painting setups (e.g. digital matte replacement, digital background replacement, sky replacement, etc.)
- Motion graphics and design

Portfolio Tips

- Provide breakdowns of the layering of your shots. This allows us to get an insight into how you work.
- For live action composited shots, demonstrating CG element integration, it's always good to show the breakdown of the before and after as well.
- For any motion graphics and design, make sure to demonstrate that you have an understanding of 'layering' elements together.
- Although we use Nuke as our compositing software at the Academy, we are happy to see work done in other software packages (e.g. After Effects, Fusion, Natron, Blender).

Technical Direction

Ensuring all technical aspects of pipeline production work together

Technical Directors (TD's) are programmers, responsible for developing tools for artists and maintaining the pipeline for the production of the animation and/or visual effects projects.

As TD's work closely with every department, it is important to have strong technical capabilities and interpersonal skills, including good communication, and an interest in collaboration and helping others. TD's also need to iterate quickly, so good problem-solving, time management and notetaking skills are a must.

This role is great for programmers looking for a career in the animation and visual effects industries.

What to include in your portfolio

- Documented experience in coding/programming, linking a Git repository along with visual examples. At least one example showing knowledge of Python is mandatory.
- Information or examples of group work that showcase your aptitude in writing software alongside artists (e.g. implementing assets provided to you by an artist for a game or developing tools to help an artist complete their work).
- If you have developed plugins for any creative applications (e.g. Maya, Blender, Houdini, etc.), include examples of these tools.
- Information or examples of work history that demonstrate your skills in problem-solving.

Portfolio Tips

- Where available, include any examples of your work that are within a digital production or visualisation context. Note - at the Academy our artists use Maya, Mari, Katana, Houdini, Blender, and Nuke, but your examples do not need to be for these applications specifically.
- This role requires strong programming skills, specifically in Python, and optionally, C++. The more examples in these languages the better, but examples in other languages that you think are relevant are also fine. 3-4 examples are preferred.
- Where possible, we encourage including examples of group projects in which you were a programmer, with a breakdown of the work you were responsible for.

Examples of problems you faced as a group and how you overcame them are great to include as well.

Production Management

Keeping projects and people working together and on schedule

The Production Department ensures that the project runs to schedule.

Their responsibilities include tracking the status of each department's assets (e.g. 3D models, animation of a shot, lighting in a scene, etc.), working closely with a supervisor to assign tasks to the artists, scheduling delivery time for each task, and taking notes for the artists during reviews.

This is a great role for those who want to get into the animation, VFX and games industries but envision themselves in a Project Management or Producer role.

What to include in your portfolio

- Project Management case studies (also make sure to include any experience in Trello, Excel and Autodesk Flow Production Tracking)
- Time management case studies
- Creative team management case studies
- Demonstrated interest and/or experience working with animation or visual effects
- Interest in helping others

Portfolio Tips

- Production is about helping artists deliver the best work they can on time, so make sure to demonstrate any examples of your experience with teamwork and collaboration (as these are most important!)
- Production is not about being the boss or telling people what to do, so always highlight examples of having a great attitude, an interest in helping others and generally being a 'people person'.
- If you have any digital artist work or technical skill sets you'd like to highlight, we would love to see these too.

Portfolio Format

Please ensure your portfolio follows the format requirements below:

Digital artist specialisations

(Art Department, Pre-visualisation / Layout, Modelling, Rigging, Animation, Effects (FX), Surfacing, Lighting, Compositing)

- Please provide a digital portfolio of work demonstrating aptitude in your nominated specialisation as a PDF file (maximum 10 pages) AND/OR showreel link (maximum video duration 2 mins) on Vimeo, YouTube or a QuickTime file, with clear captions of what your role was in each sequence presented.

Technical specialisation

(Technical Direction)

- For Technical Direction applicants, please provide documented experience in coding / programming for digital production or visualisation and include links to coding projects on sites such as GitHub (PDF file, maximum 10 pages).

Production specialisation

(Production Management)

- For Production Management applicants, please provide documented project coordination and/ or event management experience (PDF file, maximum 10 pages).

Portfolio Advice

To give you the best opportunity to be accepted into the Master of Animation and Visualisation, your portfolio of work should demonstrate your ability and experience in your nominated specialisation.

Here are also some practical tips to keep in mind:

- **Focus on quality over presentation**: Your work is the most important aspect of your application. Don't worry too much about creating a visually stunning PDF; the content matters more than the presentation.

- **Keep file sizes reasonable**: Ensure that your PDFs and video files (MOV) are not excessively large. Large files can be difficult to upload and download and may cause delays in reviewing your application. Even better, provide us with an online link to your work.

- **Prioritise clarity**: Make sure your work is clearly presented and easy to find. Start with the most relevant pieces that align with the specialisation you are applying for.

- **Organise your online portfolio**: If you have work hosted online, provide a separate document titled "Online Portfolio" with links to your work. Make sure these links are accessible and lead directly to your portfolio pieces.

- **Highlight your best work first**: Always lead with your strongest, most relevant work. This is your chance to make a strong first impression.

- **Provide context and explanations**: Briefly describe each piece of work, including your role, the tools and techniques you used, and any challenges you overcame. This helps reviewers understand your skills and experience.

- **Proofread your submission**: Ensure all documents are free from spelling and grammatical errors. This reflects your attention to detail and professionalism.

- **Follow submission guidelines**: Adhere to any specific instructions provided by the Academy regarding file format, file types, and naming conventions. This shows your ability to follow directions and respect the application process.

Contact

Book a one-on-one consultation call

If you have any questions about the Academy, our courses, or the application process, you're welcome to book a free 15-minute Zoom consultation call with a member of our team.

When booking a call, please let us know which specialisation you would like to focus your studies on: Art Department, Pre-visualisation / Layout, Modelling, Rigging, Animation, Effects (FX), Surfacing, Lighting, Compositing, Technical Direction or Production Management.

To request a consultation call, please email: animallogicacademy@uts.edu.au