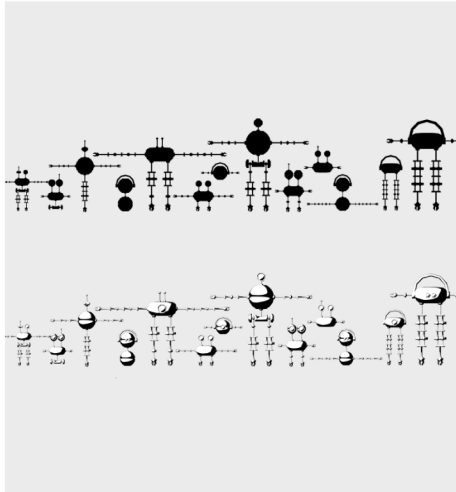# COMPUTER GRAPHICS

In 2012 Victoria launched a new programme in Computer Graphics. The new programme was developed in collaboration with movie effects facility Weta Digital, games company Sidhe, and advanced technology company Unlimited Realities. The Computer Graphics programme is unique in Australasia in combining courses from both design and computer science. This combination of technical and design skills give students mastery of existing animation and game techniques as well as the ability to create new types of software. Students will explore topics such as parameterized design, generative modelling, creative coding, as well as compositing different media, such as 3D imagery and video to produce exciting new forms of creative visualization. You can choose to major in either design or computer science, and there are two corresponding Masters degrees for advanced students. Course instructors have included consultants from Sidhe and Weta Digital, and students in the Masters portion of the programme will be considered for internships at these companies.

Vic Computer Graphics student — Richard Roberts

Beginning his studies with a focus on interaction for gaming, Richard used programming languages like Python and C++ to develop his projects. These skills quickly lead to an internship at Weta Digital. There he developed the first prototype of a system that helped in the production of the movies Rise of the Planet of the Apes and Tintin.

Richard is now applying knowledge gained in his internship to his Masters research. One of the biggest challenges faced by 3D artists is the vast number of models required in a movie or game. Richard's research has resulted in software that can automatically generate prototype robot models, allowing artists to rapidly explore the space of designs and select candidates for further refinement.

"My experience with my fellow students and the staff at Victoria University provided the direction I needed to give substance to my projects, as well as the motivation required. During my studies I have created a strong passion for the digital realm, one which I hope to now share with those following a similar path as a tutor and post-graduate."

Sidhe User Interface Artist — Sam Carew

Sam Carew graduated in 2011 and is now working at games company Sidhe. While Sam states that she did not expect to delve into video creation or coding when she started her studies, she is now grateful for the resourceful skill set that make her a confident designer. Throughout her studies, Sam became accomplished in multiple areas of media design, from creative coding, animation, game design and app development to postproduction in videos.

This level of versatility and ability to work across multiple disciplines gave her the desirable edge when it came to applying for design jobs. In addition to her current position at Sidhe, Sam completed an internship at the multi-media company Unlimited Realities.

"I went into this degree wanting to work hard and create works that I could be proud of. I committed myself to each project and gave them my all. Not only did this allow me to become top equal in Media Design in our graduating year, but it has also prepared me for the fast real-world design challenges I am faced with today."
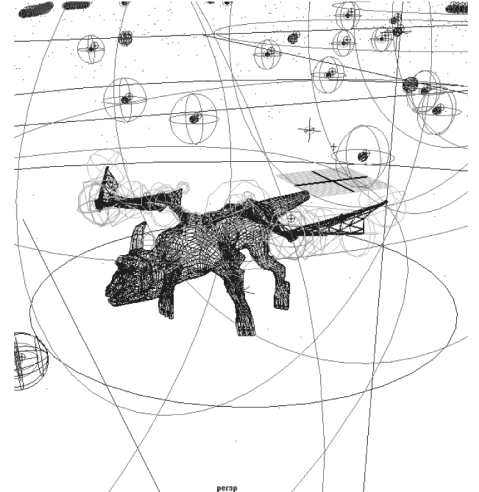
Weta Assistant Technical Director — Robert McLeod

While majoring in Media Design at Victoria, Robert took several game and animation courses from the new Computer Graphics programme. In the Postproduction and Special Effects course he mastered the use of Python to generate novel behaviours in the Maya animation program, a skill that is highly sought by industry employers. Robert is now working as an Assistant Technical Director at Weta Digital on projects such as the upcoming Hobbit.

"Growing up, I had always had a passion for visual effects films and games. It wasn't until trying a computer graphics paper when I was reminded of my passions and validated those passions as a career path. Studying at Victoria has aquainted me with a variety of artistic and technical knowledge, which I happily apply, and expand on, in my current role at Weta Digital."

Visit computergraphics.ac.nz for more information.