



Conference 17 - 20 November 2019 **Exhibition** 18 - 20 November 2019

Brisbane Convention & Exhibition Centre (BCEC), Brisbane, Australia



SIGGRAPH ASIA 2019 Weta Digital Careers



Weta Digital

Weta Digital is one of the world's premier visual effects companies. Based in Wellington, New Zealand, and led by Senior Visual Effects Supervisor Joe Letteri, Weta Digital is known for uncompromising creativity and a commitment to developing innovative technology. Groundbreaking performance-driven digital characters like Gollum, Kong, Neytiri, and Caesar are widely acknowledged as some of the best digital characters ever put on screen. Recently finished projects include Avengers: Endgame, Game of Thrones, and Alita: Battle Angel.

Location: Wellington, New Zealand

Job Openings

1. Senior Facial Motion Animator

Responsibilities:

As a Senior Facial Motion Animator, you will play an important role in our specialized Facial Motion Team, creating high-end facial animation. You will focus on translating subtleties of an actor's performance on to our characters and creatures, ensuring that our digital performances are realistic, believable and emotionally engaging.

This is an exciting opportunity to work alongside facial experts across various departments. A strong eye for detail is essential and good technical abilities is a plus.

- 5+ years experience in facial animation on Feature Films or Video Games
- Ability to analyse and understand facial performances
- Knowledge of FACS and facial anatomy
- Knowledge of Maya
- Excellent communication skills
- Team player
- Other desirable experiences or skills:
 - Character animation skills



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- Working with FACS based facial rigs
- Facial modelling and sculpting experience
- o Experience working with mocap data in facial animation production
- o Experience working with facial capture systems
- Ability to script, e.g. Pytho
- Working in Linux environment

2. Pipeline Developer (Assets R&D)

Responsibilities:

We are looking for developers to help design, develop, maintain, and support the artist-facing tools used by Modelers, layout artists, Virtual Production assets creators, and Facial Modelers/riggers. Come be part of the team that has been responsible for adding a unique, award winning level of realism to everything from dragons, highly evolved apes, and avenging superheroes to distant planets, fantastic jungles, and incredible future cities!

We need someone with highly developed technical skills and the ability to create and implement elegant artist workflows atop efficient infrastructures. You will work closely with both the artists that we directly support and with developers, engineers, and TDs from across the facility to help create new moviemaking techniques and make them as efficient as possible.

This is a unique opportunity for someone interested in a highly technical position, who can thrive in a dynamic atmosphere that constantly evolves. Organization and enthusiasm will be key for someone with an eye for working toward long term solutions while delivering immediate functionality.

- An industry related degree (or equivalent experience as a developer)
- Experience in VFX, Animation, or similar production pipeline environment. (4+ years)
- Python experience (4+ years)
- PyQt/PySide experience (4+ years)
- Maya experience (4+ years)
- Other desirable experiences or skills:
 - Production artist/TD
 - Maya Python API
 - o Houdini, Katana, Nuke applications and APIs
 - Proprietary software
 - CI/CD and Agile practices
 - Other development languages





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3. Experienced Motion Pipeline TD

Responsibilities:

Have you ever written and supported technology that connects users in Film/Feature Animation/Games/Software?

Weta Digital is looking to hire for the Motion R&D department to service our Motion artists, pipelines, and workflows (Animation, Motion Edit, Facial Motion, Crowds, Previs, and adjacent departments).

Requirements & Qualifications:

- Strong experience with Maya and/or MotionBuilder
- Strong scripting abilities in python for Maya
- Comfortable with troubleshooting/enhancing/refactoring existing code
- Comfortable with long-term projects and short-term support
- Strong technical and creative problem-solving skills
- Experience in visual effects, game or software development
- Excellent verbal and written communication with technical and non-technical users
- Other desirable experiences or skills:
 - Experience working on a help desk or as a tutor
 - Experience with C++, QT, PyQt/PySide, JIRA, gitlab
 - Experience with Nuance
 - Experience with Massive
 - Familiarity with unit/integration/regression/acceptance testing
 - Proponent of clean code design patterns

4. Senior Python Developer

Do you have a keen vision for data flow, intuitive API design, and clear UX? Are you motivated to use bigpicture insight as a platform for top-quality code? In your visual effects or gaming career have you experienced the difference end-to-end thinking makes?

Responsibilities:

Production Engineering is responsible for continuously improving how Weta Digital's artists collaborate to create movies. If you have a robust suite of VFX software skills and a passion for seamless, intelligent design of multi-faceted tools and pipelines, we have the challenges and environment for you to thrive! Multi-tier servers with multi-language APIs; desktop GUIs; full-stack web; application integration; image transformation and interaction are some of our specialities.

- Top-grade, expert-level Python, with complementary experience in C++, Java, or Go
- Skilled GUI development in Qt or the web (particularly AngularJS)
- Command of database interaction (particularly PostgreSQL and Elasticsearch)
- Basic understanding of Maya, Houdini, Nuke, Katana, or Shotgun
- Comfortable working in Linux
- Delight in a fast paced, constantly evolving workplace





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5. Senior Research Scientist, Computer Vision and Machine Learning

Weta's Technology and Research group is the innovation engine of Weta Digital. All large-scale projects of the studio are powered by tools invented and developed by the group, and it is well-known how leadership in both the technology and research spaces is a key strategic objective for Weta Digital.

Weta Digital is looking for an experienced, visionary senior research scientist to help guide research and implementation of tools based on computer vision and machine learning (CVML) across our technology and research departments.

As part of our senior technology and research group, you will lead our research in the CVML space and lead a team of developers delivering high quality software in fast paced, challenging and creative environment.

Responsibilities:

- Lead research into CVML-based tools and applications across the studio, in fields such as image synthesis, denoising, computer vision, motion analysis and synthesis as well as large scale data discovery, mining and analysis
- Be a key advisor in setting the direction for Weta's strategy in the CVML space, in collaboration with the Senior Head of Technology and Research to align with the studio's wider goals
- Work closely with the heads of our technology and research departments to share insight into
 mutually beneficial opportunities for new solutions, exercising a high level of creative thinking
 for leveraging CVML to build new, improved tools for the VFX process
- Collaborate with developers to design and ship applications and plugins to enhance the quality
 of the work of Weta's artists, improve their focus on the task at hand and empowering them to
 achieve new levels of excellence in their field, by means of a pleasant, forceful personality and a
 charismatic communication style
- Seek and maintain long-term collaborations with leading research institution around the world, fostering a climate of collaboration between the industry and academia
- Stay up-to-date and contribute to the applied research in the CVML space, spanning both the
 theoretical and implementation sides. Apply new technologies in the development and
 enhancement of our products and processes and develop a vision for new possibilities.
 Continuously raise the effectiveness of the team building skill and trust both inside and around it

Required skills and experience:

The ideal candidate will have a number of publications in the field, corresponding to observable improvements in tooling similar to Weta's areas of interest, such as image synthesis, denoising, computer vision, motion analysis and synthesis, data analysis and discovery.

The ability to illustrate a vision and a complex set of ideas in a manner appropriate to the present audience will be a crucial asset to the successful candidate.



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The candidate will also be able to demonstrate skill in leadership and mentoring roles, ideally involving teams of researcher and engineers or various degrees of seniority as well as project managers and interfacing with testing teams.

Another crucial asset to the successful applicant will be an ability to illustrate best practices of use of the proposed tools to artists and technical directors with a rich diversity of backgrounds, enhancing their understanding of the new possibilities offered by the proposed technology and stimulating a fruitful exchange of ideas with the target user base.

The candidate will also be able to demonstrate a high degree of competence in multi-threaded C++ development on Linux and its associate toolchain, as well as common libraries for CVML applications. It is understood the successful applicant may also be versant in other languages common in this space, such as Java, python or R and the associated library package.

- PhD or Master's degree and proven track record of excellence in research
- Proven track record of achieving significant results as demonstrated by grants, fellowships, patents, as well as first-authored publications at leading workshops or conferences such as CVPR, ECCV/ICCV, SIGGRAPH, NIPS
- Demonstrated software engineer experience via an internship, previous work experience, coding competitions, or widely used contributions in open source repositories (e.g. GitHub)
- Willing to work in Wellington, New Zealand
- Other desirable experiences or skills:
 - Image synthesis and rendering
 - Animation
 - Physically based simulation
 - Design of effective user interfaces, workflows and interaction stories for new tasks
 - Requirement gathering and an ability to elicit expression of stated as well as latent needs from the target users
 - Experience with real-time environments, high performance computing and GPU programming
 - Experience working in a professional development team, including collaborations with project managers, tracking tooling such as Jira, regular reporting on progress and similar
 - Familiarity with Linux-based environments
 - Familiarity with common VFX pipeline tools such as Nuke or Maya and in general the VFX process