

SIMULATION RESEARCHER

Weta Digital is seeking a Researcher to join our Simulation Department:

Responsibilities:

Work within a team environment to develop new simulation algorithms for CFD, Biomechanics, Plants and Clothing

Adapt the latest research results into practical, production quality code

Implement core simulation algorithms with a focus on high performance, multithreading, distributed computing, large scalability and robustness

Analyse and optimize system performance

Improve and maintain existing code to improve quality, reliability and maintainability

Proactively test new and existing features to ensure the highest levels of quality

Provide hands on user support. Find and fix bugs. Author high quality internal and end user documentation

Planning and tracking development tasks, engaging with users, and collaborating with other departments

Design and implement physically realistic material models

Required Qualifications:

Masters or Ph.D. in Computer Science, Computer Graphics, Physics or Applied Mathematics

6+ years of industry software engineering experience

Extensive expertise in largescale software engineering

Proven simulation research expertise

Fluency in C++ and experience with other languages such as Python

Experience in performance analysis and optimization of highly parallel, scalable systems

Ability to work well on a self directed team in a rapidly changing, deadline oriented environment

A basic understanding of computer graphics and physics based animation/simulation

Desirable Qualifications:

Qualifications in Film

GPUcompute programming expertise and experience with interactive rendering algorithms

Experience in film or video game production

Industry experience with computer graphics or better yet visual effects

Experience in designing algorithms for MPI based applications

Familiarity with tools such as Valgrind, Vtune, git, JIRA and so on

Maya, Houdini or similar API expertise.

Location: Wellington, New Zealand

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