Graphics Programmer

Reports To

Lead Programmer

Responsibilities

- Implement graphics algorithms, techniques and processes that meet the artistic, design and technical requirements of the project;

- Work as a key part of an agile development team, organising and planning the implementation of features with direction from their lead, and assist less experienced programmers;

- Use practical solutions to implement feature requests, taking into account performance, maintainability and resource usage;

- Ensure coding standards are followed in their own and others code;

- Collect, interpret and analyse the technical feasibility of system/feature specifications;

- Write clear and well-structured code using the appropriate data structure and algorithms while bearing in mind performance, maintenance and architectural requirements;

- Include comments in the code and document implemented features;

- Demonstrate an understanding of the basics of load testing and game feature testing and write test code;

- Stay up-to-date with technology advances within the field;

- Perform code reviews for peers;

- Extract and interpret relevant runtime system resource information (disk IO, network, CPU, memory, etc).

Skills and Knowledge

- Good mathematics ability and a familiarity with common 3D graphics principles and rendering algorithms;

- Good working knowledge of current GPU architecture and modern rendering APIs including Direct3D 12 or Vulkan;
- Very good C/C++ programming skills, with very good knowledge of object oriented development including design patterns and UML;
- Experience working with a large game codebase, and it's modules, middleware and associated pipeline;
- Understanding of speed and memory considerations, and able to implement basic optimisations;
- Knowledge of common algorithms, data structures and patterns, and their application;
- Ability to analyse unfamiliar code of a reasonable complexity to understand, extend and refactor an existing module;
- Ability to debug defects of a reasonable complexity, including memory related issues, and multi-threading;
- Knowledge of different software development methods such as Test Driven Development, Unit Testing, Agile etc.;
- Understanding the constraints and technical requirements for console platform development within their area is a plus;
- Ability to adapt to change;
- Good interpersonal and communication skills.

Relevant Experience

- Bachelor's degree in computer science or computer engineering or equivalent experience;
- 3 years commercial software development experience with significant involvement in 1 published game in a relevant programming capacity is a plus;
- Experience working with at least one modern console platform is an advantage;
- Experience with profiling tools is desirable;
- Experience working in a multi-site collaboration environment is a plus;
- Experience developing shaders using HLSL or similar;
- Experience with CUDA or similar.