



Senior Graphics Programmer

Reports To

Lead Programmer

Responsibilities

- Analyse and determine if current graphics functionalities in the game meet the project's requirements
- 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, and assist the lead with planning and review of features and mentoring less experienced programmers
- Implement innovative solutions to feature requests, taking into account performance, maintainability and appropriate resource usage
- Participate in the definition of coding practices and ensure coding standards are followed with regular code reviews
- Collaborate with stakeholders to gather and analyse technical constraints and establish solutions
- Demonstrate an understanding of load and feature testing , write test code, and develop test frameworks and processes
- Stay up-to-date with state-of-the-art technology and promote its use within the studio
- Integrate large-scale modules or components while minimising the impact on the rest of the programming team
- Contribute to and on occasion lead cross-studio collaboration communications in conjunction with the Lead Programmer
- Establish and maintain contact with their counterparts within the studio, share knowledge and best practices, and put those learnings to use on their projects
- Involved in the optimisation of systems

Skills and Knowledge

- Excellent mathematics ability and extensive knowledge of common 3D graphics principles and rendering algorithms
- Very good working knowledge of current GPU architecture and modern rendering APIs including Direct3D 12 or Vulkan
- Knowledge of a variety of special FX techniques and the latest rendering algorithms
- Ability to successfully resolve GPU issues originating in other systems
- Excellent C/C++ programming skills, with excellent knowledge of object oriented development including design patterns and UML
- Extensive experience working with a large game codebase, and its modules, middleware and associated pipeline
- Deep understanding of software performance considerations, with ability to design and implement well performance systems/features
- Significant knowledge of common algorithms, data structures and patterns, and their application
- Proven ability to analyse unfamiliar code of a reasonable complexity to understand, extend, refactor and optimise an existing module
- Proven ability to debug defects of a reasonable complexity, including memory related issues, multi-threading, and assembly level debugging
- In-depth knowledge of different software development methods such as Test Driven Development, Unit Testing, Agile etc.
- Understanding of the constraints and technical requirements for console platform development within their area
- Excellent interpersonal and communication skills
- Ability to mentor others

Relevant Experience

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