

3D Programmer, Ubisoft Winnipeg

NOC code: 2174

Who we are

Ubisoft Winnipeg is a technology studio with a unique mission: develop new technologies that will change the way we build video game worlds. We are the only Ubisoft studio focused on exploring the unknown to develop technology that empowers game creators—at all Ubisoft Canadian studios—to build even better, more immersive worlds across our major brands such as Far Cry, Assassin's Creed and Watch Dogs. Our vanguard studio is on the hunt for passionate and experienced innovators to lead our inspired team in the creation of leading-edge technology in one of Canada's fastest growing cities for game and tech development. Join the family!

Who you are

You are the mastermind behind our stunning visuals, the lens through which our players experience our game worlds. You are passionate about developing new technologies and workflows to put the power of creation into the hands of artists. You will analyze and re-think existing technology and tools to build new methods to create the most beautiful and memorable game worlds in the industry. You are eager to dive into work across the spectrum of 3D programming from rendering engine architecture to hardware ray tracing to shader optimization.

What you'll do

- Plan 3D technology development with Technical Artists and the Lead Programmer
- Iteratively develop new 3D technology in collaboration with Technical Artists and other programmers
- Analyse and propose improvement to the existing 3D technology in the engine
- Perform memory and performance optimizations of the 3D technology to meet the requirements for target platforms of the game
- Provide support to Technical Artists and other team members as required to correctly and efficiently utilize the 3D technology
- Debug and fix issues in the 3D technology as they arise
- Write and publish scientific papers on new technology as required

What you bring

- The drive to push the real-time rendering quality in games to the absolute limit
- A passion for new technologies and the know-how to implement them
- A degree in Computer Science or Computer Engineering or equivalent training or experience
- Experience in 3D programming for Xbox One, PS4 and/or PC (DX11+/OpenGL 4.3+)
- 5+ years programming experience
- Shipped at least 1 game as rendering engineer
- Relevant experience working on AAA titles, current and next-gen consoles
- Understanding of modern GPU rendering pipeline and how to utilize it efficiently
- Solid understanding of 3D linear algebra

- Comprehensive understanding of rendering techniques used in modern AAA game productions
- Mastery of C/C++ with excellent multi-threaded programming techniques
- Experience with hardware raytracing, voxels and/or global illumination
- Experience with real-time Physically Based Rendering (lighting, BRDF's, camera model, etc.)

What to send our way

- Your CV, highlighting your education, experience, and skills

About Ubisoft

At Ubisoft Winnipeg, we believe it is not work experience, education or training alone that qualify you to work on our team. A deep passion to build and create, a personal arsenal of innovative solutions to problems developed from an inner calling – we place considerable worth in your personal accomplishments because we recognize that the value they bring to our creative, innovative culture is immeasurable.

We believe our diversity is our strength. We recognize and celebrate a variety of perspectives, opinions, opportunities, and voices. We embrace our differences and draw from them to build our collaborative family culture. We believe we are stronger together.

Ubisoft is committed to enriching players' lives with original & memorable entertainment experiences. We build worlds that are a playground for the imagination, offering moments of surprise, fun and adventure as well as opportunities for learning and self-discovery. At Ubisoft, you'll grow and collaborate with highly talented teams from around the world. Our massively friendly work environment will inspire you to go above and beyond to create worlds people will fall in love with. Whether as an elite spy, a master assassin, or a fearless explorer, we put the player at the heart of all our games.