

Yue WANG

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SUMMARY

3D programmer at Ubisoft Montreal. 6 years experience in graphic programming, mainly focusing on real-time rendering, physically based rendering, raytracing and global illumination.

SKILLS

LANGUAGES	C++, GLSL, HLSL, Python, MATLAB, Mathematica, LaTeX
GRAPHIC APIS	DirectX 12, Vulkan, PS4 GNM, PS5 AGC, PSR, DXR
TOOLS	PIX (PC/Xbox), RenderDoc, NSight, PS4/PS5 SCUI, PS4/PS5 Razor Git, Perforce, Mathematica, Houdini, MeshLab, Blender, Photoshop, CMake

WORK EXPERIENCE

OCT 2021 - PRESENT	3D Programmer at ANVIL ENGINE, UBISOFT MONTREAL <ul style="list-style-type: none">• Led a small team developing raytracing global illumination (GI) and related systems• Supported production GI features in Anvil Engine on PC, PS5 and Xbox Series X/S• Implemented state-of-the-art sampling strategies for improving GI convergence• Optimized raytracing shaders for better performance based on platform constraints
JAN 2021 - OCT. 2021	3D Programmer at ANVIL ENGINE, UBISOFT MONTREAL <ul style="list-style-type: none">• Worked on ray-traced dynamic GI solution in Anvil Engine• Supported raytracing BVH management for static and dynamic meshes• Implemented automatic raytracing material approximation and management• Worked on raytracing API abstraction for multiple platforms
JAN 2019 - DEC 2020	3D Programmer at ASSASSIN'S CREED VALHALLA, UBISOFT MONTREAL <ul style="list-style-type: none">• Developed deep snow (terrain deformation) and deferred snow system• Maintained and improved the weather system (rain, storm, cloud) in collaboration with artists• Debugged engine and graphic issues, profiled and optimized shaders on PC, PS4, PS5, and Xbox
JUNE 2018 - DEC 2018	3D Programmer Intern at LA FORGE, UBISOFT MONTREAL <ul style="list-style-type: none">• Implemented system to place cubemaps non-uniformly given static 3D scenes• Optimized probe-space ray-marcher for accurate reflections at runtime
JULY 2017 - MAR 2018	3D Programmer Intern at LA FORGE, UBISOFT MONTREAL <ul style="list-style-type: none">• Implemented light-field probe algorithm and fully integrated into Anvil engine• Tested and profiled in Rainbow Six on PC and PS4 for improving specular reflections
SUMMER 2015	Programmer Intern at RTX LAB, UNIVERSITY OF ALBERTA, Edmonton <ul style="list-style-type: none">• Implemented FPGA-based 2D Finite Element Method(FEM) for motor simulations• Optimized the sparse solver for the system of linear equations of FEM

PUBLICATIONS

May 2019	Fast Non-uniform Radiance Probe Placement and Tracing <ul style="list-style-type: none">• ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games 2019, Montreal, Canada• Best Student Presentation Award
OCT 2015	StreamVisND: Visualizing relationships in streaming multivariate data <ul style="list-style-type: none">• IEEE Symposium on Visual Analytics Science and Technology 2015, Chicago, USA• VAST Honorable Mention Poster

EDUCATION

Sep 2016 - Dec 2018	Master of Science, Computer Science, McGill University
SEP 2012 - JUNE 2016	Bachelor of Science, Computer Science, Shandong University