

VIKTOR ZOUTMAN

I am a graphics programmer who loves mathematics and compose them into something that gives artists the ability to create pleasing imagery. Additionally I also have a passion for working on complex systems in the form of making applications and production run more efficiently.

DETAILS

Gender: Male
Date of Birth: 03 - 07 - 1998
Nationality: Dutch
Residence: The Netherlands

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LANGUAGES

- Dutch - Native
- English - Fluent
- German - Basic

- C++ - Advanced
- Rust - Competent
- GLSL - Advanced
- HLSL - Advanced

SKILLS

- DirectX 12 - Advanced
- Vulkan - Advanced
- Raytracing - Advanced
- Deep Learning - Novice

- Git
- Subversion
- Perforce
- NSight Graphics
- RenderDoc
- Microsoft PIX



EDUCATION

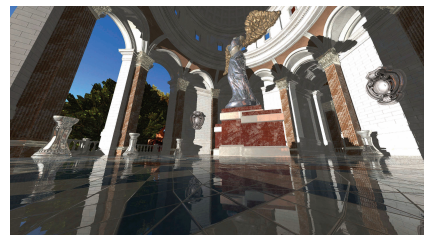
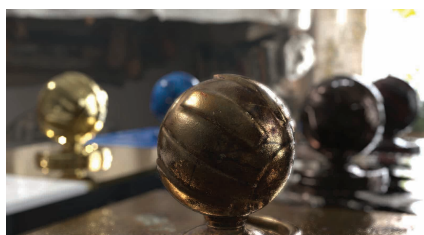
BACHELOR OF GAME PROGRAMMING

Breda University of Applied Sciences

01 Sep 2016 - Current

Wisp Renderer (www.vzout.com/wisp)

This project is a DirectX 12 realtime (hybrid) raytracing RTX renderer with Autodesk Maya integration. The renderer supports major raytracing features like Global Illumination, Ambient Occlusion, Reflections and Shadows. But also support Depth of Field with Bokeh, Tonemapping, HDR and HBAO+



The Autodesk Maya plugin replaces the standard viewport renderer with a functional real time raytraced viewport giving images that are much closer to the final renderer output without being bothered by accumulation while editing.

This project was created with a team of 8. In this team I was the Lead Developer. I wrote the core of the renderer, raytracing backend, deferred renderer, HBAO+, Path Tracer, Global Illumination and Raytraced Mip Level Generation. Due to my role as Lead Developer I designed and help implement many of the other features, fixed bugs and was responsible for the optimization of the renderer.

RTX Mesh Shading (www.vzout.com/mesh_shading)

Mesh shading is a feature that can improve performance for rasterized and hybrid renderers and make procedural geometry more achievable in realtime. This project (it is WIP) consists of a research paper and a demo project to showcase this new technology. This is a solo project.

The demo project (Vulkan renderer) contains features like instancing, tessellation and culling which are more performant thanks to the flexibility mesh shading offers. To make the demo more visually pleasing I also implemented PBR, Clear Coat, Subsurface Scattering and more.

The research paper goes into more depth on why and how you can achieve better performance. This paper however is work in progress.

MBO GAME DEVELOPER

Alfa College, Groningen

01 Aug 2014 - 31 Jul 2016 (Accelerated)

At this school I learned to work in a team, independently and how to effectively problem solve issues. I also learned about design, traditional arts and digital arts which helps me with interdisciplinary communication.

WORK EXPERIENCE

RENDERING ENGINEER

Embark Studios / Traverse Research



4 March 2020 - Current

I'm currently on internship at Traverse Research where I work for Embark Studios. My current tasks are implementing Virtual Reality support and implementing DirectX12 so we can ship for the new Xbox console. So far my internship has been a lot of fun and I get to meet a lot of people I know by name from research papers.