




# Aquagraphics

## ▼ Ressources

- Water rendering en C++ et OpenGL (raytraced reflection & refraction)

GitHub - realkushagrakhare/ProjectWater: Realistic water rendering using shaders in OpenGL. Inspired from Evan Wallace's WebGL water rendering. Realistic water rendering using shaders in OpenGL. Inspired from Evan Wallace's WebGL water rendering. - GitHub - realkushagrakhare/ProjectWater: Realistic water rendering using shaders in ...

 <https://github.com/realkushagrakhare/ProjectWater>


- Water simulation en C et GLSL (gpu)

GitHub - MauriceGit/Water\_Simulation: Water-Simulation with real time specular reflection on the waters surface. The reflection is implemented in GLSL. Water-Simulation with real time specular reflection on the waters surface. The reflection is implemented in GLSL and runs on the GPU and in screen space. The water its

 [https://github.com/MauriceGit/Water\\_Simulation](https://github.com/MauriceGit/Water_Simulation)

- Water rendering C++ et OpenGL

GitHub - teodorplop/OpenGL-Water: Water Rendering using OpenGL and C++  
Water Rendering using OpenGL and C++. Contribute to teodorplop/OpenGL-Water development by creating an account on GitHub.

 <https://github.com/teodorplop/OpenGL-Water>

teodorplop/  
**OpenGL-Water**

Water Rendering using OpenGL and C++



0 Contributors 1 Issue 31 Stars 5 Forks



- Evan Wallace le boss

WebGL Water

Made by Evan Wallace

 <https://madebyevan.com/webgl-water/>

- Evan Wallace github

GitHub - evanw/webgl-water at 73eda8be832b649367b25ea5690c1f0181bb56ad

WebGL Water Demo. Contribute to evanw/webgl-water development by creating an account on GitHub.

<https://github.com/evanw/webgl-water/tree/73eda8be832b649367b25ea5690c1f0181bb56ad>

evanw/webgl-water

WebGL Water Demo

- Les Caustiques par Evan Wallace

Rendering Realtime Caustics in WebGL

I created <http://madebyevan.com/webgl-water/> back in 2011 and I've always been meaning to explain how it works. The most interesting aspect...

<https://medium.com/@evanwallace/rendering-realtime-caustics-in-webgl-2a99a29a0b2c>

- Article "Real time rendering optical effects of water" (C++, OpenGL, GLSL)

[https://www.cs.umd.edu/~mount/Indep/Aharon\\_Turpie/final-rept.pdf](https://www.cs.umd.edu/~mount/Indep/Aharon_Turpie/final-rept.pdf)

- Video Youtube

20 - How to write a Height-Field Water Simulator with 100 lines of code.

In this tutorial I explain how to simulate water as a height field and its two-way interaction with solid objects.

The demo:

<https://www.youtube.com/watch?v=hswBi5wcqAA&list=PLMlwHmNCipW34oJ-vxAB3BGeR37I-Gm&index=5>

- Video Youtube

Beautiful Fluid Simulations...In Just 40 Seconds! 🤖

♥ Check out Weights & Biases and sign up for a free demo here: <https://wandb.com/papers>

♥ Their mentioned post is available here: [https://wandb.ai/wandb/getting-started/reports/Visualize-Debug-Machine-Learning-Models--VmldzoyNzY5MDk?utm\\_source=karoly#System-4](https://wandb.ai/wandb/getting-started/reports/Visualize-Debug-Machine-Learning-Models--VmldzoyNzY5MDk?utm_source=karoly#System-4)

<https://www.youtube.com/watch?v=LtyvS7NYonw&list=PLMlwHmNCipW34oJ-vxAB3BGeR37I-Gm&index=6>

- Youtube Playlist de OpenGL Water tutorials

OpenGL Water Tutorials

<https://www.youtube.com/playlist?list=PLRIWtICgwaX23jiqVByUs0bqhnaINTNZh>

- OpenGL Tutorial Water Waves GPU algorithm

3D C/C++ tutorials - OpenGL 2.1 - Water waves GPU algorithm

<http://www.3dcpptutorials.sk/index.php?id=48>

- Interactive water surface, light reflection and refraction + caustics


### 3D C/C++ tutorials - OpenGL 2.1 - Interactive water surface, light reflection and refraction, caustic

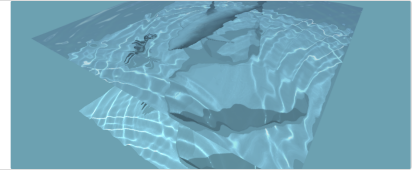
First, the water surface 512x512 normal-bump-map (NBM) RGBA32F texture is created using a wave function in the fragment shader. The surface normal is calculated as an optimized cross product of 4 neighboring vertices and is stored in the rgb channels. The surface height (y value) is stored in the alpha channel. The light reflection and refraction effects are a bit tricky. There is one reflection, one refraction and one depth texture. All of them are the size of the screen. The reflection <http://www.3dcpptutorials.sk/index.php?id=43>

- Real time rendering of water caustics

#### Real-time rendering of water caustics

In this article, I present an attempt for generalizing caustics computation in real-time using WebGL and ThreeJS. The fact that it is an...

 <https://medium.com/@martinRenou/real-time-rendering-of-water-caustics-59cda1d74aa>



- Water physics in 100 lines of code

<https://github.com/matthias-research/pages/blob/master/tenMinutePhysics/20-heightFieldWater.html>

- Florentin

#### GitHub - Flare00/M2-Projet3D-Aquarium: M2 - Projet 3D - Réalisation d'un Aquarium

M2 - Projet 3D - Réalisation d'un Aquarium. Contribute to Flare00/M2-Projet3D-Aquarium development by creating an account on GitHub.

 <https://github.com/Flare00/M2-Projet3D-Aquarium>

#### Flare00/M2-Projet3D-Aquarium


M2 - Projet 3D - Réalisation d'un Aquarium



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- Shaders cookbook


GitHub - PacktPublishing/OpenGL-4-Shading-Language-Cookbook-Third-Edition: OpenGL 4 Shading Language Cookbook - Third Edition, published by Packt - GitHub - PacktPublishing/OpenGL-4-Shading-Language-Cookbook-Third-Edition: OpenGL 4 Shading Language Cookbook - Third Edition, published by Packt - GitHub - PacktPublishing/OpenGL-4-Shading-Language-Cookbook-Third-Edition: OpenGL 4 Shading Language Cookbook - Third Edition...

 <https://github.com/PacktPublishing/OpenGL-4-Shading-Language-Cookbook-Third-Edition>

- Adrien

#### GitHub - HouleAdrien/Fluids3D-cpp: A cpp fluid simulation that uses the Shallow water equations

A cpp fluid simulation that uses the Shallow water equations - GitHub - HouleAdrien/Fluids3D-cpp: A cpp fluid simulation that uses the Shallow water equations

 <https://github.com/HouleAdrien/Fluids3D-cpp>

#### HouleAdrien/Fluids3D-cpp

A cpp fluid simulation that uses the Shallow water equations



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