

# Matteo Bertello | Graphics Programmer

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I am an undergraduate Computer Science student with a strong academic background and a C++ programmer with an emphasis on cross-platform support and performance. My main focus and passions are 3D graphics and low level engine programming. I'm always looking for new challenges to tackle and eager to learn new things.

### **Previous Employment**

RTView Udine

Virtual Reality Software Developer

March 2014-Present

I am a Virtual Reality content developer using C++ and Unreal Engine 4. I am responsible for the creations of the gameplay interactions, the materials and the development of a plugin to export 360 degree stereoscopic movies directly from the engine. I also developed a native C++ application for both Android and iOS, a WebGL-based product visualization web application and several in-house tools for assets processing.

#### **Education**

Academic qualifications.....

University of Udine Udine

Computer Science, Thesis on Automatic camera management in a real time 3D environment 2008–2012

ITI Malignani Udine

Mechanics and Automation 2003-2008

#### Publications.....

• **Leviathan:** A New LTL Satisfiability Checking Tool Based on a One-Pass Tree-Shaped Tableau (IJCAI-16)

A C++ implementation of a tableau method for Linear Temporal Logic satisfiability checking.

#### Technical skills

- Programming languages/API: Proficient in C++, C, OpenGL/GLSL
   Also basic ability with Direct3D 11/HLSL, x86 assembly, Javascript, Haskell, Scala, Java, Objective-C
- Others: Programming experience using Visual Studio and Xcode IDE, Unix shell/environment, Clang/GCC toolchains, with a strong attitude towards performance and optimizations. Knowledge of Git and Mercurial.
   Basic experience with Win32 and Posix API, data oriented design concepts and multithreaded programming.

## **Personal Projects**

- **Helios:** an implicit surface renderer based on the Sphere Tracing algorithm, written in C++14 using OpenGL compute shaders, featuring live scene reloading and automatic binding of shader variables to the GUI
- BRDF Explorer: a simple tool built using WebGL to provide a visual comparison between several different BRDF models commonly used in 3D graphic applications

## Language proficency

English: Fluent
 Italian: Native