# **Guilherme R. Lampert** | Resume

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# **Software Engineer**

- Technology degree in Digital Games. Passionate about games, computers and programming, with strong technical and interpersonal skills for working in a team and successfully completing a project.
- o Experience in large scale software, Game Engines and multi-platform programming. Capable of working on low-level highly optimized code, as well as in high-level system abstractions.
- Strong emphasis on graphics. Specialized in OpenGL and GLSL programming on Linux, MacOS and iOS.

## **Education**

Unisinos Brazil

Technology degree in Digital Games

2009-2015

This is a Computer Science and technology degree focusing on software development for Games and Computer Graphics. Unlike Computer Science, this is a much more specialized course with a lot of practical assignments and projects specific to Game Development.

#### The University of Western Australia (UWA)

Australia

Computer Science and Mathematics

2012-2013 From 2012 to 2013, I had the opportunity of participating in a one year Study Abroad scholarship program at UWA. The scholarship was sponsored by the Brazilian Government as part of the Science Without Borders education program.

# **Previous Employment**

#### Brazil Freelancer Programmer

2013-Present Several Employers

In the recent years I have worked as freelancer on different programming contracts involving mainly banking and business software for payment, SmartCards and spreadsheet applications. References available upon request.

#### Tools And Technologies (T&T)

**Brazil** 

Generalist Programmer, City of Porto Alegre

2012

Worked full-time as a generalist programmer in a team (6 programmers) developing embedded software for ATMs and banking hardware. Main tools involved: C, C++, BatchScript, JavaScript, Windows API and Visual Studio.

Sysnec **Brazil** 

Programming Internship, City of Porto Alegre

2011

Web development and database management internship. Main tools involved: VB.Net, JavaScript, GoogleMaps API, HTML and SQL. Responsibilities: Update, fix and expand websites and web applications. Customer support, testing and Quality Assurance.

# **Notable Projects**

#### Course research project: Virtual Texturing on Mobile Platforms

Researched and implemented real-time Virtual Texturing techniques on the iOS platform for my final course project. Virtual Texturing is a novel approach to the management and use of large texture databases in real-time applications. It consists of an advanced texture atlasing technique that implements a management setup analogous to Virtual Memory, thus allowing for very large texture data sets, in theory only limited by the amount of offline storage available in the device. The project was approved with honours by the course's review board.

# Personal project: PlayStation 2 homebrew game

Reverse engineering and retro-programming interest me as a hobby, so in early 2015 I experimented with homebrew development for the PlayStation 2 Console, using only the freely available tools and software provided by the homebrew community. One outcome of this project was a demo game I call "The Dungeon Game". It is a third-person action RPG with a medieval-fantasy theme. A short video is available on YouTube.

### **Technical and Personal skills**

- **Programming Languages:** C and C++ adept with 6+ years of experience in the major standards (C99, C++98/03/11/14). Also basic ability with Assembly Languages, JavaScript, Lua, DLang, Rust, VB.Net and Objective-C.
- o Graphics APIs and Libraries: Advanced user of OpenGL, WebGL, OpenGL-ES and GLSL. Basic knowledge of Direct3D 9/10/11, HLSL and NVidia-Cg. Intermediate to advanced user of STL, Boost and the POSIX API.
- Programming Tools: Vi/Vim adept. Intermediate knowledge of the Visual Studio IDE and XCode. Advanced command-line and Unix Shell user (GCC, Clang, Make, CMake, Premake, Git, Flex, Bison).
- General Business Skills: Good writing and presentation skills. Capable of writing well organized and structured reports and documentation. Works well in a team. Familiar with SCRUM/Agile software development.
- Other: Good understanding of algebra and 3D linear math. Basic knowledge of rigid body physics and pathfinding.
- Languages spoken: Brazilian Portuguese (Native); English (Fluent); French (Beginner).