

Hugo Puhlmann

Passionate and technical software engineer with a strong sense of code quality and design. Five years of professional experience as a software engineer, including three years in the games industry and two at an integrated circuits company. Currently working with games on spare-time with solo and group projects, and also professionally with serious games focused on vehicle operation training.

Skills

- Advanced Extensive experience with C++, C#, Git and Unity3D.
- Intermediate Strong mathematical skills, mostly in linear algebra, calculus and geometry. Knowledge of low-level programming and compiler development, in particular LLVM. Experience with Lua, Python and Java.
- Basic Understanding of game engine architecture, computer graphics and OpenGL.
- Languages Native Portuguese speaker. Fluent in spoken and written English.

Professional Experience

- 2015–Present **Lead Software Engineer, Realdrive Simuladores, Santa Maria.**
Responsible for the development of serious games with Unity3D, with products focused on vehicle operation training. Main responsibilities involve AI programming, designing general gameplay systems, optimization, and also guiding the team in accordance to technical practices on game development.
Core projects being worked on are a driving simulator for use in Brazilian driving schools, and a simulator for ship-to-shore cranes with realistic simulation of several types of cargo. Also designing a more reliable, secure, and scalable replacement for a legacy backend system, promoting team discussions for clarification and improvement of design proposals.
- 2014–2015 **Team Leader of Software Development & IT, SMDH, Santa Maria.**
Responsible for the development of a C language compiler for an internally-designed CPU, including defining technologies to be used and project management. Languages and tools involved were mostly C++, LLVM, Visual Studio, CMake and git.
Helped in the design of a 16-bit RISC CPU, reviewing and specifying the instruction set, also providing technical guidance and specification of the software simulator for the architecture. Responsible for IT recruitment and leadership, planning activities and leading the team into providing a better service for the company.
- 2013–2014 **IT Analyst and Software Developer, SMDH, Santa Maria.**
Worked mainly with IT-related tasks, such as technical support, maintenance of Red Hat and CentOS servers and workstations, network management and task automation with shell scripts and Python.
Also helped with the development of a hardware simulator for an internally-designed microcontroller, using mostly C# and C++.
- 2012–2013 **Game Programmer, IMGINATION Studios/Decadium Studios, Santa Maria.**
Worked using Unity3D and C# to develop two mobile games, NBB Game (Aquiris Studios, Sports) and Dodge This! (IMGINATION Studios, Action). Responsibilities included mainly UI and gameplay coding.

Other Experience

2014–2015 **Game Jams.**

- Helped organize two game jams in Santa Maria, with participation of a small community of local hobbyists and game development companies from the city.
- Participated in the 2015 edition of Global Game Jam in one of the sites in Porto Alegre. Successfully developed a 2D puzzle game with Unity3D, as a group of seven people organized at the event. Detailed results are available at <http://hstefan.com/2015/02/15/GGJ-We-Are-Fox.html>.

2014–Present **Misc. Projects**, <https://github.com/hstefan>, <http://hstefan.com/>.
General programming experiments and side-projects.

Education and Awards

2009–2013 **Bachelor of Computer Science**, *Universidade Federal de Santa Maria*, UFSM.

2011 **ACM ICPC Competition**, *ACM-ICPC*.

1st place in the 2011 regionals in Rio Grande do Sul

2011 **ACM ICPC Competition**, *ACM-ICPC*.

40th place in the 2011 Brazilian finals