

Education

- PhD Computer Science. École Polytechnique, Paris - FR. 2016
- MsC Computer Science. Javeriana University, Cali - COL. 2013
- BsC Computer Science. Javeriana University, Cali - COL. 2008
- High School Diploma. Rossville Middle/High School, Indiana - USA. 2001

Technical Skills

- Languages: C++20, C#, .NET, Python, Lua, Lisp, Javascript, Matlab
- Libraries: Boost, C++STL, OpenGL, GLSL, DirectX, SDL
- Tools: CMake, Git, SVN, Jekyll, CI, IceSL, FDM and Resin printers
- Frameworks: Emscripten, Unix, Windows.h, Visual Studio, XCode, QtCreator

Employment

Research Engineer at MFX, Inria Nancy 2016-Present:

- Main developer of the [IceSL software](#). Charged with developing, maintaining, documenting and deploying software. Developer and responsible for its web version. Charged with integrating research results into software features. Developer, maintainer and documenter of plugin system. Tasked with tech support.

Doctorant Contractuel at COMÈTE, Inria Saclay 2013-2016:

- Charged with research of mathematical models of concurrency for social networks. Developer of libraries of concurrency from research results. Part of the main committee of the ICTAC 2015 conference.

Research Assistant at AVISPA, Javeriana University 2008-2013:

- Tasked with R&D of multimedia tools aimed at concurrent applications. Charged with implementation of libraries of sound protocols.

Projects

IceSL - <https://icesl.loria.fr/>

- Slicer that produces instructions for several 3D printers. Features state of the art research in 3D printing while making it accessible to the public. It also has modeling capabilities; 3D objects are created by scripting geometry with Boolean operations or importing external assets (e.g. STL's). Deployed in Windows and Linux (64 and 32 bits) with also a web version. Features a plugin system for further configurability of the slicing pipeline.

REACT+

- Modeling of security, biological and multimedia interfaces through concurrency theory. This included tools for verification and simulation such as a model checker for NTCC (a concurrency language) and an interaction library through the OSC protocol for NTCC and multimedia application ANTESCOFO.

References

- Sylvain LEFEBVRE, Researcher at Inria - Nancy Grand Est. sylvain.lefebvre@inria.fr
- Frank VALENCIA, Researcher at École Polytechnique - Paris. frank.valencia@lix.polytechnique.fr
- Stefan HAAR, Researcher at ENS Paris-Saclay. stefan.haar@inria.fr
- Catuscia PALAMIDESSI, Researcher at Inria Saclay - Paris. catuscia@lix.polytechnique.fr

Languages

Spanish (Native) – English (Fluent) – French (B2)

Portfolio

See publications, source code and other projects in website:

<https://members.loria.fr/sperchy/>