

# Guillaume Piolat

Signal Processing Software Developer

+33 6 33 60 83 53  
✉ guillaume.piolat@gmail.com  
borned June 11<sup>th</sup>, 1987

Detailed resume here: [www.guillaumepiolat.fr](http://www.guillaumepiolat.fr)

---

## Experience

- 2013 → 2014 **Video Codec Engineer**, *Allegro DVT*, Grenoble.  
Member of a video compression team.  
Intensive optimization, speed/quality tradeoffs, testing enhancements, mentoring interns.  
C++, HEVC, H.264, SSE, AVX, CUDA.
- 2011 → 2012 **R&D Software Engineer**, *Allegro DVT*, Grenoble.  
Generalist developer for a critical video transcoding solution.  
Maintenance in a complex software project, HTTP adaptative players, processing quality, debugging.  
C++, MPEG DASH, Apple HLS, COM, DirectShow
- 2009 → 2010 **Research Engineer**, *INRIA*, Grenoble.  
Graphics programmer on MarketSimGame, a serious game which aim to help selling aircrafts.  
C++, Java, JNI, OpenGL, multiresolution.
- February → August 2009 **Audio DSP engineer intern**, *Arturia*, Grenoble.  
Physical audio synthesis for percussion emulation.  
embedded C++, DSP, heavy constraints.
- June → August 2008 **Audio DSP engineer intern**, *Arturia*, Grenoble.  
Emulated the sound of the Hammond B3 organ and its Leslie speaker, for the Origin synthesizer.  
embedded C++, DSP, optimization.
- Summer 2007 **3D Developer intern**, *INRIA*, Grenoble.  
Realistic rendering of clouds supervised by a PhD student.  
C++, GPU, shaders, OpenGL.
- Summer 2006 **Game developer**, *Leibniz Lab*, Grenoble.  
Created an educational CD-ROM.  
Macromedia Director MX, Flash, Delphi 7, OpenGL.

---

## Education

- 2009 **Master of Science**, *Grenoble INP - Ensimag (Computer Science and Mathematics engineering school)*.

---

## Skills

Programming languages	C++, D, Javascript, x86 assembly, Java, Delphi	Tools	Visual Studio, Git, Subversion
Libraries	OpenGL, OpenCL, CUDA, Win32, SDL, IPlug	Systems	Windows, Unix, GPU programming, SHARC processors, DOS
Mathematics	3D, digital signal processing, multi-resolution, FFT and LPC analysis	Languages	French (mother tongue), English (technical)

---

## Misc

- Interests sport, singing, programming (<http://www.gamesfrommars.fr>)