MASSIMINO Pascal, PhD

Compression - Image & Media processing - Hardware interaction - Large-Scale Engineering
v6.1

C++, assembly (NEON, x86), GLSL, and anything around to make these work and shipped at scale.
Deep hands-on 'get things done' engineering, along with a researcher mindset. Hardware and software.

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EXPERIENCE

Helsing — *Software Engineer*

2024 - present: Working at low-level (mostly software / hardware) on:

- Centaur : Fighter aircraft simulator (for RL)
- HX-2 strike drone
- Other UAV and special sensor projects...

Google — *Principal Engineer*

2006 - 2024:

- Streetview: imagery, backend, serving, jpeg compression (used everywhere at Google)
- YouTube: back-end, video compression, thumbnails, processing pipeline, Video for VR
- WebP: initiator of the format, wrote most of the initial code, worked with the ecosystem on adoption and user support.
  - Public talks to influencers: 2020 WebP Rewind, 2021 WebP Recap, how compression works...
  - WebP2: Next-gen format my team and I experimented with.
  - Researched compressing images in ~200 bytes
- AOMedia: developing AV1/AVIF video codec with industry partners.
  - Public advocate and speakers: #1 in french, #2, #3, slides, ...
- Manager of small dedicated team
- **21 US patents**

XviD Solutions GmbH — *Co-Founder*

2000- 2007, Video Codec Consulting & Development

Co-Founded Xvid Solutions to leverage the open-source development of the XviD code (in Ffmpeg notably). Wrote MPEG2, H263, H264 codecs for various DSP platforms in all sorts of low-level languages. Shipped in volume to numerous set-top boxes and home devices.

Ilog, Paris — *Senior Engineer*

2000-2005, Operation Research and Constraint Propagation technology. Worked on the flagship Scheduler product until the acquisition by IBM.

EDUCATION and RESEARCH

PhD, 1999 — *Theoretical Physics*

- Elastic Ising Models : Modèle d'Ising compressible (in french)
- Effect of magnetoelastic interactions on the phase transition of two-dimensional Ising spin system

Alma mater: Ecole Normale Superieure de Paris (1991)

SIDE INTERESTS

- FinTech: business angel and investor
- Entrepreneur / consulting: metaskal.com
- Marathon & Trail runner - Rock Climbing - Muay Thai - Music & Rock band