

Christopher Gautier

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EDUCATION

- 2008–2011 M.Sc. in the Computer Laboratory (PLS group) at the University of Cambridge (UK). Thesis subject: **Software Plagiarism Detection with PEGs**. Supervising students on Optimising Compilers.
- 2007–2008 M.Phil. in Computer Speech, Text and Internet Technology, at the University of Cambridge. Thesis subject: Filter trees for combining binary classifiers. Overall grade: **A+**.
- 2001–2002 *Diploma in Computer Science*, with distinction, at the University of Cambridge. Student research project: development of a **decompiler**
Diplôme d'ingénieur de l'École Centrale de Paris (ECP, France).
- 1999–2001 Student at the École Centrale de Paris (now Centrale Supélec).
- 1996–1999 Classe préparatoire aux Grandes Écoles: intensive Mathematics and Physics course at the Lycée Hoche (Versailles, France).
- June 1996 French *Baccalauréat* in Sciences (specialized in Mathematics), with honors.

PROFESSIONAL EXPERIENCE

- April 2012–Now **Senior Principal SW architect and Team lead** at Arm Holdings.
Architectural design of Mali GPU ESSL / SPIR-V / DXIL compiler frontend/middle-end.
Architectural design of (another) Mali safety-critical compiler and GLSL-to-SPIR-V frontend for VulkanSC.
Interface with OpenGL ES, Vulkan, VulkanSC & DX12 driver stacks.
Team lead of SW architect driver team.
Input to future HW GPU roadmap.
- Feb–Dec 2011 **Lead software architect** at IDM (Ingénierie Diffusion Multimedia).
Designed a cross-browser suite collecting specially-recruited respondents' web browsing habits for marketing and ad campaign evaluations.
- Aug 2005–Sept 2007 **Production manager of dictionary CD-ROMs** at IDM for major publishing houses (Cambridge University Press, Oxford University Press, Pearson, Macmillan).
SW architect of CD-ROM product division.
Project leader of the XDCC production framework (website and toolkit suite for high-volume publishing of CD-ROM products).
- Aug 2003–Aug 2005 **R&D engineer** at IDM.
Design and development of an open-source **highly-multithreaded data compiler**.
Development of a **XML hierarchical search engine**.
- Jan–Aug 2003 C++ development of a **fingerprint recognition server** at Sagem Morpho.
- June-Aug 2001 R&D internship at IDM. C++ development of the **search engine** for the *Encyclopædia Universalis* product (interactive multimedia encyclopaedia on CD-ROM/DVD). **Coordinator** of the Macintosh team.
- Aug 2000 Internship in Germany (6 weeks) at **Siemens KWU** (design and construction of nuclear plants).
Updated a 3D visualisation tool (C development on HP/UX), data conversion, user interface enhancements.

LINGUISTIC SKILLS

- French/English** **Bilingual.** In 2007, scored **117/120** at the English TOELF iBT test. Studied 4 years in UK. Fully English-speaking environment since 2012.
- Japanese** **Upper intermediate.** Passed the JLPT N2 in Dec. 2021 (score 129/180), 6-week internship for Panasonic in Osaka, studied 3 months in Nihon University (Tokyo)
- Swedish** A2 (self-evaluation, completed Svenska För Invandrare)

COMPUTER SKILLS

- Programming** C/C++, Java, C#, Perl, Python, Assembly (i686, Arm Cortex A, etc.), SQL, ML
- Internet** SSH, VPN, Apache, PHP, Tomcat
- VCS** git, SVN, Mercurial
- OS** Linux (Red Hat, Ubuntu, Debian), Windows, MacOS, FreeBSD

HOBBIES

- Ongoing Long-distance running, hiking, archery
- 2001–2002 Co-developer of a puzzle/action game Krystal Drop, which **won the third prize** of the French Concours National du Jeu Libre 2003 (JCIE), a competition of open-source games.
- 2000–2001 Active member of VIA, a student association which administers the local network at the Ecole Centrale Paris (700+ PCs).
User helpdesk for the school computer laboratory (80 SUN & Windows workstations).
- 1999–2001 Creator and project leader of a 3D virtual reality toolkit