

# Curriculum Vitæ

Name Alain Knaff  
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## Studies

- 1988 “Diplôme de fin d’études secondaires”, section B (mathematics) at Lycée Hubert Clément in Esch-sur-Alzette.
- 1988 4th at the 13th Belgian Maths Olympiad.  
Participant for the G.D. of Luxembourg in the 29th International Mathematical Olympiad at Canberra (IMO), Australia; bronze medal.
- 1988-1990 Two years preparation in mathematics and physics at the Lycée Louis-le-Grand in Paris for the admission contests at the “Grandes Écoles”.
- 1990 Success at the following admission contests (a.o.):  
École Polytechnique: 1st foreigner  
École Normale Supérieure: 5th  
École Centrale des Arts et Manufactures: 5th (all) and 1st (foreigners)
- 1990-1992 **“Ingénieur of the École Polytechnique de Paris”**
- 1992-1993 “Diplôme d’études Approfondies” (**DEA**) in computer science, major: distributed systems, architecture and parallelism on the subject “*Gestion d’objets partagés dans un espace virtuel à 64 bits d’adresse*” (Managing shared objects in a virtual 64 bit address space) with Distinction.
- 1993-1996 **“Thèse de doctorat”** (doctoral thesis) in Computer Science at the Université Joseph Fourier (Grenoble) on the subject “*Conception et réalisation d’un service de stockage fiable extensible pour un système à objets persistants réparti*” (Design and implementation of a reliable and extensible storage system for a distributed persistent object oriented system). This work was done in the framework of the SIRAC project at the INRIA. Defended on October 21st, 1996.

## Professional experience

- 04.1992 - 07.1992 Engineering internship: Implemented an enhanced Prolog interpreter which was designed to check the type system of the object-oriented Modula-3 language for the DEC/SRC lab in Palo Alto (Ca/USA). The interpreter is itself written in Modula-3, and runs on Unix.
- 09.1993-07.1996 Taught practical classes on the Pascal and Scheme programming languages for second year students of the DEUG at the UJF (Université Joseph Fourier, Grenoble).
- 12.1996 - 05.2000 *Architecte Technique* at the *Banque Générale du Luxembourg* : Experience in **Java**, Smalltalk and Windows NT. Contact with CICS, DB/2. Developed extensions for the “Object Team” UML Case Tool (now known as *Telelogic Tau*).
- 05.2000 - 06.2006 *Software Engineer* at the *Société Européenne des Satellites*. In depth experience in **Java**, Perl, Linux, Tru64, Windows NT, Windows 2000. Development of an object-relational mapping system (DBIF) on top of Oracle. Participated in the development of Astra’s one-way Internet-via-Satellite system, which offers both a VPN and a Proxy solution. Agile software development.
- 07.2006 - now *Software Engineer* at the *SES Techcom*. Development of an end user management system for our two-way Internet platform (*Ispif*). Participation in ESA projects. Experience in XML, SOAP, the HTML::Template Perl module and some project management.

## Extra-professional activities

- Various presentations for the Luxembourg Linux User Group (2001 - 2006)
- Development of several *Open Source* utilities: udpcast (data-transfer via UDP multicast), mtools (access to DOS/Windows file systems from Unix) and zlib (transparent access to compressed data). (1993-2001, updates since)
- Author of the current Linux kernel decompression framework which supports multiple decompressors rather than just hardcoding gzip (2008-2009).
- LLL initiative: Internet connectivity for Luxembourgish highschools (1997-now).
- Development of the Linux floppy driver (1993-1996).
- Member of MENSA (since 2010): IQ 145 on CFT 20-R test, and 146 on FRT test

## Languages

Fluent English, French, German and Luxembourgish

## Computer skills

### Programming languages

Excellent knowledge of C, Perl, Java; some knowledge of Python, C++ and Intel x86 Assembler.

## **Systems**

Unix system administration and kernel programming (Linux and AIX). Application development on Linux, AIX, Solaris and Tru64.

## **Leisure**

Ski, hiking, traveling, Linux.