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EDUCATION

- **2003-2004**: *Ecole Nationale Supérieure des Télécommunications* (ENST, Paris, France, 75).
  Diplôme d'Etudes Appronfondies (DEA) in Digital Communications Systems. Graduate program focused on research. Graduated in September 2004 with distinction (ranked 1st).
- **1999-2004**: *Ecole Supérieure d'Ingénieurs en Electronique et Electrotechnique* (ESIEE, Noisy-le-Grand, France, 93).
  Five-year electronics and computer science college in Paris. **Telecommunications and Signal Processing** major. Graduated in July 2004 with the equivalent of an **M.Eng in Electrical and Computer Engineering**. Ranked 1st.
- **2002**: *Université de Marne-la-Vallée* (UMLV, Champs-sur-Marne, France, 77).
  Licence d'Informatique option Informatique du signal, equivalent to a **B.Eng in Computer Engineering** with a minor in signal processing. Awarded with distinction.
- **1999**: *Lycée Polyvalent Louis Bascan* (Rambouillet, France, 78).
  Baccalauréat Scientifique, French national secondary level diploma with emphasis on mathematics and physics. Awarded with merit.

PROFESSIONAL EXPERIENCE AND ACADEMIC PROJECTS

- **Since January 2006: Technical coordinator, GSM/EDGE/UMTS Engineer, MStar France/*VMTS*,** www.mstarsemi.com
  Technical coordinator on audio aspects (debugging, tools, implementation, certification). Design, implementation and integration of WCDMA/UMTS baseband digital signal processing algorithms. Specification of the system architecture for GSM/GPRS/EDGE baseband integration with UMTS modem. Algorithms and architecture design for HSDPA receiver.
- **September 2004-January 2006: DECT Software Engineer, *Thomson Telecom*, formerly *Inventel*,** www.inventel.com
  Hardware validation and software development for high end DECT phones based on ARM7/DSP. Advanced features development in C for: SMS, MMS, VGA photo capture, JPEG & MP3 decoder, Dataflash management, LCD drivers (color/B&W), DECT high-speed data link, IrDA and USB transfers (vCards, JPEG & MIDI), software MIDI synthesizer, remote display from Livebox and AOLBox. Code optimization for memory sharing and critical resource management.
- **April-September 2004: 6 motnh intership, *Wavecom*,** www.wavecom.com
  Studied, implemented and improved advanced channel decoding algorithms for GPRS, EGPRS and UMTS/HSDPA. Implemented the developed algorithms in a complete GPRS simulator in C (Coding Schemes, Doppler, fading, multipath, interferences). Preliminary HSDPA simulation chain development. Designed the hardware architecture for future product integration. Patent proposal on innovative channel decoding algorithms. Used C/C++ programming, Matlab and CCSS.
- **September-October 2003: Academic team project (4 students), *ESIEE-Paris*,** www.esiee.fr
  Studied a new ETSI (Aurora group) standard for distributed speech recognition (DSR). Used and tested the speech parameters (ETSI ES 202 050) in a Very Low Bit Rate speech coder (500bps) based on a recognition-synthesis scheme.
- **May-July 2003: Three-month internship (2 students), *Chalmers University of Technology* (Gothenburg, Sweden),** www.s2.chalmers.se
  Studied and fully implemented a motion compensated video compression algorithm designed for practical packet-lossy video communication networks like the Internet (IP), based on the H263+ standard and multiple description coding. Used C/C++ programming in a multi-platform environment (Windows 98/NT/XP, Unix and Linux) with UDP streaming. Authored "Multiple description codes for video communications" publication, part of the IPviedo project.
- **Spring 2002: Academic team project (3 students), *ESIEE-Paris*,** www.esiee.fr
  Analog filter numerical design. Applied numerical optimization algorithms to the design of analog filters with arbitrary specifications (used Matlab, Mathematica and C/C++ programming).
- **Autumn 2001: Academic team project (3 students) , *ESIEE-Paris*,** www.esiee.fr
  Fast Fourier Transform (FFT) and its applications. Constructed FFT algorithms and used them for sound compression, demodulation and light diffraction simulation (used C/C++ programming).
- **September-October 2001: Two-month internship, *FOGALE Nanotech* (Nîmes, France, 30),** www.fogale.com, **metrology instrumentation designer specialized in dimensional measurement without contact.**
  Designed and constructed the user software and the algorithms for *Microsurf 3D*, a commercial optical profiler for characterization of M(O)EMS (optical switches, micro accelerometers, etc.) and their three-dimensional representation by interferometric image processing. Used Visual C++ in Windows NT and external devices (CCD camera, video capture card, I/O card).

- **July 2001: One-month, *Laboratoire Régional de l'Ouest Parisien* (Trappes, France, 78), Highways Department technical laboratory.**
  Conducted a project to program a file-transfer protocol between a Windows 9x server and many stand-alone data gathering terminals using a TCP/IP stack in MS-DOS. Co-supervised an intern. Developed a cartography application based on an MS-Access database with Visual Basic.
- **July 2000: One-month shop-floor internship (college requirement), *Guerlain* (Rambouillet, France, 78),** www.guerlain.com**, luxury perfumes manufacturer.**
  Production line worker.

PERSONAL DEVELOPMENTS

- **2004**: Participated in *Panorama*, an artistic project produced by *Labomedia* for a college in Orléans. C/C++ software development for video integration. Merged external camera video stream with an OpenGL 3D animation to display on 2 wide outdoor plasma screens in the college. Used Visual C/C++, DirectShow and OpenGL under Windows 2000 to interface analog video capture card. Developed specific video processing algorithms to blur moving objects.
- **1998-2001**: Developed *Bomber*, a BomberMan-like computer game featuring multiplayer and networked game, in-game voice support, customizable sounds and graphics and an efficient artificial intelligence. Used Visual C++ and DirectX in Windows 9x. 100,000+ downloads on www.petitgrand.com.
- **2001**: Programmed a user-friendly wave propagation simulation software with real-time visualization to quickly and easily simulate reflective, dissipative and diffractive devices such as mirrors, lenses and fiber optic. Used processor-specific optimization techniques to maximize performances.
- **1999-2000**: Developed software to allow voice transmission over UDP/IP networks, allowing full-duplex chatting over 28,8kbps modems.
- **1998-1999**: Implemented a fast FFT-based sound compression algorithm faster than MPEG 1 Layer III. Easily tunable compression ratio ranging from 3:1 up to 50:1. Very low resource consumption.

TECHNICAL AND LANGUAGE SKILLS

- 11 years of PC programming practice mainly in assembly language for Intel x86, C/C++, Visual Basic. Experience in the following areas: 2D/3D graphics, sounds, DirectX and OpenGL APIs, MFC, IP protocols, multidimensional signal processing/filtering, data compression, video compression, algorithmic, statistical analysis, peripheral interfacing, real-time programming (Linux RTAI, RT Linux), embedded systems.
- Proficient with standard engineering software (Matlab, Mathematica, Simulink, PSpice, ADS) in both Windows and Unix/Linux environments.
- Good knowledge of analog and digital electronics design. User of design software (VHDL, ABEL, VeriLog, Cadence) as well as programmable logic device configuration.
- Advanced level in general and technical English (11 years of study). TOEFL test score 633.
- Basic level in Swedish and Indonesian.
- French (native language).

OTHER SKILLS/HOBBIES

- Develop software for personal use.
- Interested in Finance. TAGE-MAGE test score 440/600 (April 2004). Semi-finalist of the *Euromanager 2003* challenge. Reading John C. Hull "Options, Futures and Other Derivatives".
- Go-Kart: Former member of the team that represented ESIEE in a college league. 2002-2003 Championship winner. Participate into various events like the *24h ESSEC* in May 2002.
- Ability to grasp new concepts and to communicate ideas.
- Chess, cycling, cinema, socializing, pop-rock music.

REFERENCES

- Eric Carreel, Director, *Inventel*, eric.carreel@thomson.net
- Fabienne Shalit, DSP Group Manager, *MStar France*, fabienne.shalit@mstarsemi.com