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Nationality: Switzerland  
born: 26 may 1976  
married  
one child

## RF Engineer EPFL

### Education

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- 1994-1998 Electrical engineer study at swiss federal institute of technology in Lausanne, orientation **infotronique**. Specialized in
- Telecommunications
  - Electronics
  - Industrial computing
  - Signal processing
- autumn 1998 Diploma Work: **Doppler direction finder for rescuing people in the sea**. The system is based on the Doppler effect. The carrier frequency of an emitter located on the man who fell in the water is received on the boat. By demodulating this carrier, the direction of arrival of the electromagnetic wave can be computed and displayed. This work gave birth to the startup company *Wavemind*, whose first commercial product is the *Wavefinder* ([www.wavefinder.ch](http://www.wavefinder.ch))
- spring 1998 Semester project at the EPFL, in collaboration with FastCom, **images transmission via ISDN**
- winter 1997 Semester project at the EPFL: **remote control via telephone line**
- 1991-1994 Federal maturity type C (scientific)

### Capabilities

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- Design, building and debugging of electronics prototypes using high frequencies
- Circuit and system simulations
- Prototypes assembly
- 3D electromagnetic simulations (antennas, structures, filters)
- Antennas measurements and optimization
- Development of the test environment of prototypes. Software in VB/C++ and associated PCB
- Measurement automation (Matlab and Visual Basic)
- Integrated circuits measurement on die/wafer, using probe card
- User interface specification
- Intellectual property surveying
- Trainee work proposal, and follow up.
- UWB (6-8.5 GHz)
- GPS (1575 MHz)
- Inductive communications (10.6 MHz)
- ISM bands (434 and 2445 MHz)

## Professional experience

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- 2007 - ... Employee of *Phonak Communications* in Morat / Murten. Final contribution on the development of HF stages of a remote control and a multimedia hub for hearing aid interfacing at 10.6 MHz. Development of an UWB channel measurement setup (6-8.5 GHz). Internal support for 2.4 GHz system definition, development and antenna design.
- 1999 - 2006 Employee of *Asulab* in Marin (Neuchâtel), central research and development laboratories of the *Swatch Group*. Took part in different R&D projects, such as **GPS Watch**, **PDA Watch with wireless connectivity**, **GSM Watch** and **smart vehicle key with RF transmission** and RF-ID module. Frequency band used: 433-1800 MHz mainly
- autumn 1994 Full time work during 2 months at *Siemens-Albis* in Bern, computer installation and customer support, task automation with Word and Excel macros.
- spring 1994 Introductory course: *Lonza*. Introduction to organic chemistry. Analysis of the PP vitamin using high performance liquid chromatography. This work was organized by the foundation "Science call young people".
- summer 1993 Introductory course: *Téléphonie SA* in Lausanne: cables installation for computers and telephones, work at the inventory.
- spring 1993 Introductory course in an electrical engineer bureau: *Perrin-Spaeth* in Lausanne: First contact with CAD and technical drawing, meetings and visit of building site.
- summer 1992 Introductory course at the central computing service of the *EPFL*, familiarization with supercomputers, telecommunications networks and PC installation.

Different experiences in the enterprise owned by my family (*Chaussures Gillon-Rey SA*): articles handling, inventory management, internal customer computer support and consulting.

## Most important followed courses

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Date	Course title	Organizer, place
10-14 march 2008	Electromagnetic shielding engineering for wired and wireless communications and electronics	CEI, Davos
25-26 september 2006	ION GNSS Tutorials	Navtech, Fort Worth
17-21 october 2005	Antennas for communications	CEI, Barcelona
10-14 march 2003	Antenna measurements techniques	CEI, Davos
9-14 february 2003	ISSCC 2003 conferences + tutorials	ISSCC, San Fransisco
24-28 september 2001	Wireless measurements	CEI, Dublin
10-14 july 2000	RF Circuit design for Wireless communications	Mead Education, Lausanne (EPFL)
19-20 october 1999	International Workshop on low power IC's	Mead Education, Lausanne (EPFL)
13-14 september 1999	Navtech Seminars (different GPS courses)	Navtech, Nashville

## Patents

(original titles in french)

<b>Title</b>	<b>Other Inventors</b>	<b>Nr CH</b>	<b>Nr EP</b>	<b>Nr US</b>	<b>Nr PCT</b>
Dispositif de communication sans fil, et système de communication comprenant le dispositif.	----	1903/02	2080612		
Adaptateur pour instrument électronique portable et système de transmission entre ces deux éléments.	Yvan Ferri		EP1519457 A1	US6955552 B2	
Instrument électronique portable comprenant au moins un terminal d'entrée et / ou sortie adapté pour établir une communication avec une unité électronique logée à l'intérieur dudit instrument.	Jean-Daniel Etienne Emil Zellweger Yvan Ferri		EP1519453 B1	US2005/0073806 A1	
Antenne patch intégrée dans une montre bracelet.	Arnaud Casagrande	01509/03	EP1513220 A1	US2005/054321 A1	
Dispositif à conversion de fréquence de signaux radiofréquences pour un récepteur RF basse puissance.	Emil Zellweger Kilian Imfeld Pierre-André Farine	1483/01	1203037		EP02/08566
Récepteur de signaux radiofréquence ayant des moyens de correction des effets des signaux à trajet multiplex, et procédé de mise en action du récepteur.	Anne Montheard Pierre-André Farine	1040/01	EP1265371 A1	US7085309 B2	
Récepteur de signaux radiofréquences ayant des moyens pour améliorer la dynamique de réception desdits signaux.	Anne Montheard Pierre-André Farine	0809/01	EP1255123 B1	US7092433 B2	

## Computing

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Programming	Basic knowledge in Visual Basic, Pascal, C, C++, Assembler 8051 and PIC (Microchip)
PCB Design	Protel/Altium
Circuit simulation	Aplac and PSpice
3D EM simulation	IMST Empire
Mathematics	Good knowledge of Matlab, Basic knowledge of Maple
Internet	Basic knowledge of HTML and network protocols
Office	Word, Excel, Powerpoint

## Hobbies

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Scouting	Until 2002, Chief of the "Brigade de Montbenon" in Lausanne (about 120 people). Organization of big activities and camps, management of the leading team (15 people), public relationship, administration and logistics. License 2 Jeunesse & Sport for open air excursion and winter activities.
Sports	Sailing (with license), regattas organization, mountain bike, climbing.
Technical	Amateur radio (with license since 1995) ,electronics.

## Languages

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French	Mother language
English	Good level, no problem with technical English
German	Good level
Swiss-German	Basic knowledge

## More informations on [www.yvesoesch.ch](http://www.yvesoesch.ch)

- Technical presentations
- Articles
- Realisations