Svend HOYER

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Citizenship: French
Born the 15.09.1978
Married

Hardware and Software Developer

Objective: To bring simple solutions to complex problems in software and electronic hardware design.

COMPETENCIES

Management & Communication

- Experience in small projects and resources management (material and human).
- Ability to integrate a team and quickly adapt to a new work environment.
- Good analysis skills used to solve various encountered problems.

Computer Skills

- Programming: user interface and web apps (Visual Studio (C++, VB), **Java**, HTML, php, javascript), microprocessors and DSP firmware (Assembly, **C/C**++), FPGA algorithm (Verilog/VHDL), modeling (UML), databases (XML, SQL).
- Simulator/CAD: PCB designs (**Eagle**, Protel, PADS, Orcad**)**, data processing (Matlab**)**, mechanical designs (Ideas 2D, Sketchup), IC design (Magic, Cadence).
- Office tools: MS Project, MS Office.
- Windows administrator: Management of a small computer network and help support for the users. Windows File sharing/security, FTP server, VPN server, Apache webserver with SSL and WebDAV support, MSSQL server.

Languages

French:	native language.
English:	fluently spoken, read and written.
German:	correctly spoken and read. Basic writing skills.

PROFESSIONAL EXPERIENCE

Jan 2009 – Now – R&D Engineer, Picodrill SA, Switzerland. [www.picodrill.com]

- → Electronic development (High Frequency Power system (MHz), analog, digital)
- → Software development and maintenance
- → Mechanical elements design

- Design and update of the control system (HW & SW) for the research machines (hole drilling and glass cutting) used by the company. Analog acquisition, precise timing control and data transmission functions.

- Design and improvement of an atmospheric plasma generating system, based on either an oscillating resonant power circuit or an RF generator. Efficiency tests and circuit design research.

- Prototype machines design, production and installation on an industrial site. Management of subcontracts, delivery of parts, mechanical and electrical design (safety systems).

Jan 2006 – Nov 2008 – R&D Engineer, Sunrise Luciol Sarl, Switzerland. [www.luciol.com]

- → Electronic development
- → Project Management
- → Information system design, implementation and support

- Hardware and software design of the various controllers (PIC microcontrollers) for the optical fiber measurement systems developed by the company. Mix between analog, digital and data transmission.

- Design of a complete embedded platform to support the various optical fiber test and measurement modules. Platform based on an ETX (x86) board and an optimized Windows XP embedded image.

PROFESSIONAL EXPERIENCE (cont')

Apr 2001 - Apr 2005 - **R&D Engineer, EPFL Laboratoire de Production Microtechnique, Switzerland.** [lpm.epfl.ch]

- → Projects planning
- → Feasibility studies
- → Creation of software and hardware prototypes
- → Transfer of technology towards the industry
- → Student projects management
- → Laboratory's computers management, and Windows user's problems troubleshooting

- European project SPARC: design of an embedded system for automotive video processing which will be an element of a central security system for new cars. Management of the 2 persons for the video capture prototype creation, including electronic design, and driver development.
- Design of development tools (USB-CAN and USB-Ethernet adapters as well as windows GUI) for the use of the CAN bus (automotive transmission interface) for industrial application (stock management sensor network).
- Research study of an airbag for elderly people. Design of the measurement system (Accelerometers), creation of a fall measurement database and design of a Windows application for measurement analysis. (Collaboration with Prospective Concepts AG)

June 1999 - July 1999 - **Prototype design, EPFL Laboratoire de Microinformatique (1 month internship)**

- → Design of an inductive current sensor for a line following system. The system was designed to be integrated in a robot for the national Swiss exhibition.

STUDIES

2013	**CAS AIR (Complex Web Applications)**, HES-SO Switzerland
2004	**Object Oriented Programming course (C++)**, EPFL Switzerland
2003	**Linux introduction, and Linux administration courses**, EPFL Switzerland
1996-2001	**Ecole Polytechnique Fédérale de Lausanne** (EPFL), Switzerland. Micro-engineering studies, specialization in integrated circuit design
April 2001	**Master in Micro-engineering.**
Fall 2000	**Diploma work**. Design of a self-regulated infrared light system for a face recognition system to be installed in cars' cabins. Daimler Chrysler (Stuttgart).
Spring 2000	**Semester project**: Image processing, texture analysis and synthesis through Wavelet Frames algorithms (EPFL, BIG, Biomedical Imaging Group).
Spring 1999	**Semester project**: design of an angle measuring system based on an integrated magnetic sensor. (EPFL, IMS, Institut des MicroSystèmes).
1998-1999	**Carnegie Mellon University** (CMU), USA. (exchange) Computer science and electrical engineering fields, specialization in robotic.
1996	Baccalauréat in sciences (Type S), Mention Très Bien. France.

HOBBIES

Sports	Squash, running, skiing/snowboarding.
Computers	Video games, software development, private server maintenance (www.svend.ch).
Community	Technical delegate of the owners' assembly for our building. Management of the repairs, intermediate between the owners and the manager.

Availability: 01.01.2016.