

IT expertise

This support CV, gives a more detailed overview of my R&D and IT expertise. Any questions can be addressed to my mail address claus@frosteyes.dk

My primary focus is firmware programming and design for embedded systems. The link between an input from the physical world through a sensor, reacting on this and bringing the result back to the physical world. This task will typical contain one or more connections to high level database systems.

I target a solution where software design parameters like stability, flexibility, readability, maintenance and extension possibility is integrated with the maximum performance from the hardware.

I prefer the agile development approach combined with tools like git for version control, Jenkins for CI and Google Mock / Google Test for unit testing.

I believe in using opensource components to help accelerate development and contribute to upstream projects. Based on this have I changed my position more and more to become an embedded Linux architect.

Next to my education, I have been working with system-administration for several years, including both server and network administration.

Programming

Language	Years of experience	Level
C++	10	High
C	8	High
Shell scripting (primarily BASH)	6	High
L ^A T _E X	3	High
VHDL	3	Medium
Matlab / SciLab	3	Medium
Perl	3	Medium
Java	2	Medium
Web: (X)HTML, CSS, JavaScript, PHP	5	Medium
Python	3	Medium
Assembler (eZ8, PIC, ARM7)	3	Low

I currently prefer C++ as system language combined with Python for scripting / glue code.

Operating systems

System	Years of experience	Level
Linux generally	14	High
Gentoo	14	High
Ubuntu/Debian	9	High
Windows generally	18	High
OS X	6	High
eCos	1	Low
QNX	1	Low

My primary platform is Linux, as in my experince it supports development and system administration best. The way I use Linux is as a platform by developers for developers, making it

very intuitive for me to use.

Development tools

Compiler	GNU Compiler Collection GCC, Clang, MSVC, Green Hills Compiler, Intel C++ Compiler (ICC)
IDE	Visual Studio, Green Hills Multi, Eclipse (original, QNX Momentics, Xilinx SDK), KDevelop, Qt Creator
Probe	Green Hills Probe, Green Hills SuperTrace, Lauterbach
Editor	Visual SlickEdit, Notepad++, Vim, Emacs
FPGA development	Xilinx ISE, Altera Quartus, Lattice Diamond, GHDL, GTKWave
Version Control	Git, Subversion, CVS, MKS
Other	CMake, Google Test/Google Mock

Please ask for tools not on the list as I might have worked with it.

Microcontrollers, Soc, etc.

NXP (freescale)	i.MX Applications Processors (i.MX51), Kinetis (K70, K60, K53 etc.), LPC (LPC2148)
Xilinx	Spartan 3, Spartan 6, Zynq, ZynqMP
ST	STM32
Atmel	ATmega8, ATmega128
Altera	MaxII
Lattice	ECP3, XO2, XP2

I prefer to work with ARM based embedded systems, where Cortex-A based devices are used for high performance and Cortex-M based devices for low-power. This combined with programmable logic gives a very powerful embedded platform. Beside the devices on the list I also have minor experience with devices like Texas DSP's, Microchip dsPic, Cypress devices etc.

Network equipment

Allot NetEnforcer	AC1010 (Deep packet inspection - QOS)
Cisco ASA	5550, 5520, 5505
Cisco PIX	501, 525
Cisco Switch (MLS)	4900M, 3560, 3550, 2960, 2950
Cisco Router	3745, 2600
Linksys switch	SRW224, SRW2024
RSA	Appliance SecurID 100, 130

I have worked with other network equipment than listed, including iSCSI SAN. Consider this as a very basic list of network equipment I have worked with.

Services

Name
Apache (+ mono for .NET applications)
Web-applications (Mediawiki, Trac, Wordpress ...)
Jenkins
Nagios
Cacti with plugins like mactrac
Exim MTA (+ClamAV, MySQL greylisting, spamd)
FTP server (vsftpd, Pure-FTPd)
BIND DNS server
ISC DHCP server
Kerberos
MySQL
NFS
NIS
NX remote desktop
OpenLDAP
Samba (+OpenLDAP as AD)
HyperV virtualization
XEN / KVM virtualization

An extract of the services I have worked with. Even though a service is not mentioned on the list, I can easily have worked with it in correlation with other projects, so please ask for specific services.
