

## Work experience

### #207

Software Developer. Year of birth 1985.  
Speciality: Embedded linux

2011 – Prevas A/S  
Software Developer

2010 – 2011 Doré Development ApS  
Embedded Software Consultant

2009 – 2010 Aalborg University  
Software Developer (spare time job)

## Competencies

### Tools

- GNU Toolchain (GCC, automake, vim, etc.)
- GNU Debugger (GDB)
- MS Visual Studio
- Eclipse
- CVS, Subversion (SVN), Git

### Programming languages

- Ansi C
- Bash
- Python
- Java
- C++

### Technologies

- IPv4, UDP, TCP
- HTTP
- FTP
- 802.11, Ethernet
- Bluetooth, ZigBee, Z-Wave
- CAN
- RS232
- SPI
- I2C
- OE-lite

### Environments

- Embedded
- Linux
- Windows

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## Education

2005 – 2010 Aalborg University  
M.Sc.E.E., Networks and Distributed Systems

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## Project references

## Prevas A/S

July 2014 – Danfoss uClinux Support  
 Debugging real time performance on Danfoss' OE-lite BSP. Including downgrading to an older Linux  
 Keywords: uClinux, Nommu, Linux, OE-lite, Coldfire

May 2014 – Atlas Copco Assistance Yocto BSP  
 Assisting Atlas Copco in getting their Yocto BSP working with their needs. Including upgrading parts of their BSP  
 Keywords: HW accelerated graphics, radeon, opengl, Xorg, QT5, Nginx, Apache, Lighttpd, VNC, RDP

Jan 2014 – Focon cPCI OE-lite Linux BSP  
 Responsible for ongoing linux BSP maintenance for this customer.  
 Keywords: Duagon D215, safeupdate, cPCI, OE-lite.

Oktober 2013 – Jan 2014 Focon PSC cPCI Imagine  
 Full bringup of FOCON PSC cPCI imagine board, including custom bootloader, custom kernel, custom rootfs. Addition of custom PCI driver, and a custom duagon driver.  
 Keywords: Duagon D215, safeupdate, cPCI, OE-lite

Jul 2013 – Maquet OE-lite Linux BSP  
 Participant in ongoing linux BSP maintenance for this customer.  
 Keywords: Linux, U-boot, OE-lite.

Jul 2013 – Sep 2013 Focon PSC cPCI Imagine  
 Specification of FOCON's new Imagine CPU Board solution.  
 Keywords: Duagon D215, Sierra Wireless Airprime 7710, safeupdate, cPCI.

Jun 2013 i.MX6/i.MX53  
 Creation of sales demo BSP with i.MX6 support (Congatec) with QT on top of X11, and i.MX53 support with QT on top of X11 with full opengl.  
 Keywords: Linux, U-boot, OE-lite, OpenGL, QT, Xorg, Xorg video driver.

Jan 2013 - May 2013 Focon IGAM CODEC enhancements  
 Enhancing current Linux drivers for MCASP, davinci-pcm, tlv320aic3x, making it possible to stream sound to two codecs, using the same EDMA channel, independently.  
 Keywords: EDMA, Linux, tlv320aic3x, MCASP, davinci-pcm, I2S.

Mar 2013 Linux driver consultant  
 Working as a consultant, assisting in system debug of video streaming using FPGA.  
 Keywords: Linux structure, video4linux, development structure.

Mar 2013 – OE-lite Linux Multimedia Maintainer  
 Maintaining the multimedia meta data layer in OE-lite.  
 Keywords: OE-lite, multimedia, gstreamer.

Feb 2013 Unisensor OE-lite Linux BSP  
 Working as a SW developer within OE-lite linux BSP development. Recipe

addition, and restructuring OE-lite usage.

Keywords: OE-lite, linux, extlinux, bootstrap procedure.

Sep 2012 – OE-lite Linux QT Maintainer  
Maintaining the QT meta data layer in OE-lite.

Keywords: OE-lite, qt.

Jun 2012 – Sep 2012 Stulz C8000 OE-lite Linux BSP  
Working as a SW developer within OE-lite linux BSP development.

Keywords: Barebox, Linux, OE-lite, capacitive touch, resistive touch, QT, safeupdate, appliance watchdog.

Apr 2012 – Focon IGAM OE-lite Linux BSP  
Working as a SW developer, responsible for bring-up of customer board and creation of full OE-lite Linux BSP. After that responsible for ongoing linux BSP maintenance for this customer.

Keywords: AIS, U-boot, Linux, OE-lite, tlv320aic3x, MCASP, vs1063a, EMIFA 8/16 access.

May 2011 – Deif XDi Linux Maintenance  
Responsible for OE-lite Linux BSP maintenance releases, including upgrading bootloader, linux and OE-lite recipes.

Keywords: OE-lite, linux, barebox, safeupdate, appliance watchdog, drivers, qt.

Mar 2012 – Apr 2012 DEIF XDi OE-lite linux BSP  
Working as a SW developer, responsible for bring-up of customer board based on imx28 and creation of full OE-lite linux BSP.

Keywords: Bootstream, Barebox, Linux, OE-lite, QT, linux drivers, u-boot drivers, flexcan.

Feb 2012 – Mar 2012 DEIF MPC8309 OE-lite linux BSP  
Working as a SW developer, responsible for creation of a full OE-lite linux BSP for evaluation board MPC8309. Bringup and integration of multiple drivers in both bootloader and kernel.

Keywords: U-boot, linux, OE-lite, appliance watchdog, (safe)update, linux drivers, u-boot drivers, ethercat.

Feb 2012 – Mar 2012 Focon MMS/IIT debug  
Working as a SW developer, involved in debugging existing HW/SW.

Keywords: PCI, Ubuntu.

Dec 2011 – Jan 2012 Powercon OE-lite BSP  
Working as a SW developer within OE-lite linux BSP development. Bringup of evaluation board MityOMAPL138, creation of custom linux and u-boot including driver bringup/integration. Additionally, creation of bootstrap procedure.

Keywords: AISGEN, U-boot, linux, dsplink, RT kernel.

Oct 2011 Prevas MM21 Test system  
Working as a SW developer, tasked with optimizing test time. The test time were optimized using kernel nand driver changes, and general python changes to the test system.

Keywords: pexpect, python, nand optimisation.

Jul 2011 – Oct 2011 ASP Technologies ASP2  
Working as a SW developer, with the task of adding drivers to the application level software. The drivers include Data flash, battery level, Hall Sensor, RTC I2C, RTC DST, and Light sensor I2C driver.

Jun 2011 Cryptera UPT  
Working as developer to verify offline PIN addition to UPT.  
Keywords: APDU usage, EMV2000, ACP commands.

June 2011 – Deif AWC500pcm Linux Maintenance  
Responsible for OE-lite Linux BSP maintenance releases, including upgrading bootloader, linux and OE-lite recipes.  
Keywords: OE-lite, linux, u-boot, safeupdate, appliance watchdog, drivers, qt, RT kernel, ethercat.

June 2011 – Focon PSC Linux Maintenance  
Responsible for OE-lite Linux BSP maintenance releases, including upgrading bootloader, linux and OE-lite recipes.  
Keywords: OE-lite, linux, u-boot, safeupdate, appliance watchdog, drivers, gstreamer.

### Dore Development ApS

May 2011 – Deif Linux  
Ported DEIF OE-lite recipes from OE-lite 1.0 to X. Release test setup (hudson/jenkins).  
Keywords: Deif-linux, deif-uboot, dcontrol, meta/deif, deif-hudson.

Feb 2011 – Focon Linux  
Upgraded linux kernel to X. Upgraded u-boot to X. Ported Focon recipes from open-embedded to OE-lite. Release test setup (hudson/jenkins). Bug fixing: Boost problem, pre processor define.  
Keywords: focon-linux, focon-uboot, focon-rootfs, oe-lite-boost, oe-lite-crosstool-ng, focon-hudson, dcontrol.

Oct 2010 – Feb 2011 Internal QT project  
Developer responsible for getting QT4 embedded 4.72 to work on iMX51 and iMX28. Additionally, to get QML as well as QT4-embedded build inside OE-lite working.  
Keywords: OE-lite, QT4-embedded in OE-lite, QML demos, tslib, Qt4-embedded touch.

Jul 2010 – Feb 2011 Cryptera USIP  
Working as developer/tester on porting software from ARM91SO100 to USIP processor. ACP Commands, internal flash driver, external flash driver, USB driver, rtc driver, remote key loading, rsa key management, test software, smartpad software, DES encryption, rsa exponentiation.

May 2010 – Feb 2011 Prevas Linux  
Responsible for securing a working builds/test setup with remote software

## Competencies (continued)

upgrade for iMX28, pandaboard, mpc8313, imaginepsc, awc500pcm.  
Keywords: iMX28, iMX51, pandaboard, mpc8313, imaginepsc, awc500pcm, meta/dore, linux-imx, linux-omap, Hudson/Jenkins.

### Emulators and ICE

- NS2/3
- OMNeT++
- UPPAAL
- Matlab

### Methods and Documentation

- Analysis and design
- Structured development (SPU, etc.)
- Software documentation (UML, Doxygen etc.)

### Languages

- Danish – Fluent
- English – Fluent
- German – Basic