# - Curriculum Vitae -
## Krister Enstjärna

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**Krister Enstjärna**

# Curriculum Vitae

# Karl Krister Enstjärna

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## Personal Information

**Name:**  Karl <u>Krister</u> Enstjärna (former Sundström)

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|---|---|---|---|
| **Address:** | Byggmästarvägen 14<br>SE-168 32  Bromma<br>Sweden | **Born:** | August 1$^{st}$, 1974<br>Enköping, Sweden |
| **Phone:** | +46 8 80 80 88<br>+46 70 588 1547 | **Nationality:** | Swedish |
| **E-mail:** | krister@enstjarna.com | **Drivers License:** | Car (Clean record) |

## Work Experience

| Marvell Technology Sweden | 2012-- |
|---|---|
| Test and Integration Department | **Senior Test Engineer, NPU s/w development**<br>Marvell Technology Sweden is developing network processors from scratch, including ASIC design and has a large software development and test department. We deliver SDK's and reference systems that make it easy for our customers to develop urban network equipment.<br><br>I have done a mix of hands-on hardware testing as well as writing assembler-like code to run our own test applications onboard the routing hardware. I have used my skills in embedded system engineering as well as my knowledge in the most common programming languages to ensure that the products are well tested before shipped. |

| Cale Access | 2011-2012 |
|---|---|
| Development Department<br><br>*Apr 2011 – Aug 2012* | **Embedded Software Developer**<br>At Cale Access, I work as a software developer for the company's unattended pay-terminals used at parkings, airports and in the commuting systems in bigger cities. The platform used, is an Embedded Windows platform with several I/O's to control the terminals.<br><br>All modern terminals are using solar panels and wireless communication to report back to the back-office systems.<br><br>Here, I use my knowledge in Java, C/C++ and C#. A parking terminal of today is far more advanced than one can think and here, I have use for all my studies within space technology (low-power design, embedded thinking, etc). |

| Enea Services Stockholm AB | 2008, 2010-2011 |
|---|---|
| Embedded Platforms, Kista, Sweden<br><br>*May 2010 – Apr 2011* | **Embedded Software Consultant**<br>At the moment I am assigned to Rockwell Collins Sweden in Solna where I help them with their CommuniCase product development. CommuniCase is a complete solution for satellite communication for the military and civil markets. It is commonly used by Broadcasting companies as it is easy to bring, setup and use.<br><br>I develop and test software for their different embedded kernels and use Java and C/C++ in my daily work. The tools used are mainly IntelliJ, g++ and the most usual tools used in Linux-based systems. |
| Embedded Platforms, Kista, Sweden<br><br>*Jan 2008 – Oct 2008* | **Embedded Software Consultant**<br>My first project at Enea was to help Ericsson China develop a demonstration radio base system for China's new 3G system. I worked with the Ethernet driver on the DBM3 platform.<br><br>During my second assignment I help Ericsson to verify one of their new ASICs before tape-out. We verified AL0, Application Layer and System Layer with help of embedded ARM cores and simulation tools like Questasim and Verdi. We also verified the RTL code and define macros to access AL0 layers within the ASIC. For more realistic simulation of the ASIC, Palladium was also used to test some timing-critical functions. |

| Saab AB | 1997-2007, 2008-2010 |
|---|---|
| | During my years within the Saab Group I have had the chance to try many different technical areas such as hardware, firmware, software, instrumentation, team leading, test/requirement specification, test and verification. I tried all the steps from mindstorming to shipment of a fully qualified product.<br><br>The language used within Saab is English and I am used to read, write and analyze documents written in technical English. |
| *Security & Defence Solutions (SDS), Järfälla, Sweden*<br><br>*Design Engineer Jan 2010 – May 2010* | Within SDS I mostly developed graphical components used in marine applications and combat control. The software is developed mainly with Java and C++ using mostly open source components.<br><br>Eclipse and OSGi is the mainframe for the bigger GUI applications |
| *Saab Avitronics, Järfälla, Sweden*<br><br>*Design Engineer*<br><br>*- Signal processing*<br>*- Analogue Receivers*<br>*- Digital Receivers*<br>*- Team leading*<br><br>*Oct 2008 – Jan 2010* | At Saab Avitronics I developed radar warners for military and civil aircrafts. I developed software (mainly in C and assembler) and was responsible for the firmware of the FPGA in the pulse processing block. The pulse processor board consisted of two TI DSPs and one Virtex FPGA. Some Tcl/Tk scripts were also developed for automatic test scenarios. 90% of the tests were automatic whilst the remaining 10% needed some probing etc.<br><br>In parallel with the hardware, we developed a soft simulator in Windows to make it easier to debug and develop algorithms. The simulator is entirely developed in Visual Studio, including a firmware emulator as well. I was also team leader for the pulse processor team. |

# Work Experience (continued)

| | |
|---|---|
| ***Saab Ericsson Space, Gothenburg, Sweden***<br><br>*- Digital Products, Verification*<br>*- Object leader*<br>*- Design Engineer (s/w, h/w, f/w, test)*<br><br>***1997 - 2005***<br><br>*Nowadays Saab Ericsson Space is known as Ruag Space.* | At Saab Ericsson Space (SES) I worked with several tasks as hardware construction, programming (on both high and low levels), technical documentation, testing, etc. Languages used during development were C/C++, VHDL, Assembler, Pascal, etc., and I used programs like LabWindows, Borland Builder, Mentor and Synplify.<br><br>Our in-house boards were often based on buses like B1553, PCI, VXI/VME or GPIB. To meet the hard verification specifications on space products we often built our own embedded test cards to interact with the test objects to improve the testability.<br><br>As most of the work had to be done in the clean room environment, I am certified for testing in clean room environments.<br><br>The business language at Saab (both internal and external) is English. |

| The Swedish Institute of Space Physics | (2000-2001) |
|---|---|
| P3, Solar System Physics Department.<br><br>Kiruna, Sweden | The position was an extended education within space technology and instrumentation. At IRF I developed the neutral particle imager (NPI) for the Swedish instrument Aspera-3 onboard the Mars Express satellite. I had the opportunity to extend my knowledge in particle physics and different measuring methods of filtering and detecting high-energetic particles. I also learned more of different vacuum systems and particle generators (including calibration of these).<br><br>The detector block of the NPI held several micro channel plates (MCPs) and for filtering the charged particles, active High-voltage filters were used. For more information about the project, please visit **http://aspera-3.irf.se/** |

| Wilh. Sonesson AB. | (2000) |
|---|---|
| Technical department | **M.Sc degree project**<br>Evaluation of processors for a communication satellite constellation for mobile phones in low-earth orbit. The team consisted of five persons, each one responsible for their own special sub system. I was responsible for the onboard computer system.<br><br>For a public version of the evaluation report, please visit:<br>http://www.enstjarna.com/krister/xe.html |

# Work Experience (Continued)

| The Swedish Institute of Space Physics, Kiruna | |
| --- | --- |
| Electronics lab. | **Satellite controller (Night job during studies 1996)**<br>Preparation in giving the Space Engineering Campus and the Swedish Institute of Space Physics control over the Swedish scientific satellite Freja. The work assignment included software development, documentation and test of telemetry/telecommand links with real telecommands sent to Freja.<br><br>At several times, I had the opportunity to taking full control over the satellite to make sure the ground station worked correctly. This is an opportunity most engineers could only dream of.<br><br>Unfortunately Freja died due to a failing transponder, causing her to drift and loose solar power, before the take-over could be completed |

# Academic Record

**Royal Institute of Technology. Stockholm, Sweden**     (Jan 2004 – Sep 2005)
Medical Technology studies. Studied whilst looking for new job in
Stockholm. Not completed yet as I received a new job in October 2005.
However, all the medical oriented courses are completed.

**The Swedish Institute of Space Physics. Kiruna, Sweden**     (Aug 2000 – Oct 2001)
Extended studies in Space Instrumentation, Swedish Institute of Space
Part of a doctoral position.

**Umeå University. Kiruna, Sweden**     (Aug 1999 – Jun 2000)
M.Sc. in Space Engineering. Department of Space Physics in Kiruna,
Umeå University. *http://www.enstjarna.com/krister/xe.html*

**Umeå University. Kiruna, Sweden**     (Aug 1994 – Jun 1997)
B.Sc. in Electrical Engineering, Department of Space Physics in Kiruna,
Umeå University. [ *http://www.enstjarna.com/krister/xe.html* ] The
education is a kind of electrical engineers education with extended
knowledge in e.g. programming, physics, instrumentation, data handling.

**Military service**     (1993 – 1994)
Engineer Corps ING3, Boden. Second lieutenant

**Westerlundska gymnasiet. Enköping, Sweden**     (1990 – 1993)
Three-year technical secondary school, with specialisation in electronics.
Westerlundska Gymnasiet, Enköpings Kommun.

# Positions of Trust

**2008 – 2010**     Parent's representative in day care center board

**1997 – 2004**     Member of the Saab festivity group

**1996 -- 1997**     Member of the student festivity group.

**1996 -- 1997**     Class representative in students' union.

**1989 -- 1990**     Secretary of the computer organization Zip-Amiga.

**1988 -- 1994**     Several engagements for a local orienteering club (OK Enen) in
Enköping.
Youth representative of the board, Secretary of the board, Coach for
beginners and experienced youths, Different responsibilities during
own competitions, etc.

# General Knowledge

**Computer-related knowledge:**

- C/C++
- Assembler: *MC680x0, various µ-proc, some Intel*
- Java
- Pascal (base knowledge)
- IntelliJ
- Matlab
- PSpice
- Tcl/Tk
- ClearCase / CVS / SVN
- Questasim / Mentor
- Windows / Linux / UNIX
- Palladium
- Protel
- Mentor (base knowledge)
- LabWindows
- Borland C++ Builder
- Visual Studio
- Code Composer Studio
- PC/104
- Synplify
- OSE (real-time OS)

**Hardware and special knowledge:**

- Test methodology
- Microprocessors/controllers
- VHDL
- VXI/VME
- 1553
- GPIB
- TCP/IP (base knowledge)
- Signal processing / Data handling
- Management of various vacuum chambers.
- Instrumentation/measuring methodology
- MCP (Micro-channel plates)
- Management of various particle generators
- DSP TMS320C6203/6403
- Image processing

**Languages:**

- Swedish (mother-tongue)
- English
- German (social)

# Spare-time Occupation and Other Interests

- Orienteering
- Fishing
- Programming
- Skiing
- Nature
- Mountain hiking
- Jogging
- Movies

# References

The list is removed due to spamming of my references. The list can be requested by sending me an e-mail.

# Salary request

If we find mutual interest in each other, this is an item we can discuss later. The requested salary depends a lot on the job assignment, etcetera.