

CURRICULUM VITAE

PERSONAL DATA

Name : Nico Augustijn
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Domicile : 3067 MA Rotterdam, the Netherlands
Date of birth : December 5, 1969
Place of birth : Oud-Beijerland, the Netherlands

Nationality : Dutch
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SCHOOLING

Period	Schooling
1982 – 1988	: VWO (grammar school), Rijkscholengemeenschap Oud-Beijerland. Exams in: Dutch, English, Maths A, Maths A, Biology, Chemistry, Physics.
1988 - 1991, 1993 - 1997	: Rotterdam Polytechnic, Specialisation Electrical Computer Engineering. Propaedeutics done in 1990, graduated February 1997.
2001 - 2007	: Course modern Greek, People's university of Rotterdam.

KNOWLEDGE

Programming languages : C/C++, assembly, BASIC, HTML, CGI, Korn- Bourne- and Bourne-again shell script.
Natural languages : Excellent in Dutch and English both spoken and written.
Reasonable in Greek and french in spoken and written.
Applications : Eagle PCB designer, OpenOffice, GNU development utilities, Kdevelop, standard UNIX command-line tools

PROFESSIONAL EXPERIENCE

Period	Description
Jan. 18 2010 - Jan. 17 2011	: Soft- en hardware engineer with Threeforce B.V. in Rotterdam. Developing software and hardware for remote managed devices, setting up productiontest and production install systems. The developed systems are usually based on the Atmel AVR series microcontrollers and would usually be combined with a GSM modem and often a GPS receiver and/or an RF receiver or transmitter. <i>Keywords: C, embedded, software development, hardware (re)design, real-time, Atmel AVR, remote management.</i>
Oct. 16 2006 - Oct. 17 2008	: Software engineer embedded systems with Vidicode datacommunicatie in Zoetermeer. Developing software and drivers for a voice recording system for a hardware platform developed by Vidicode itself, based on Cirrus logic's EP9312 ARM processor. <i>Keywords: C, embedded Linux, Linux driver development, parallel programming, real-time, ARM processor, audio compression.</i>
Oct. 1 2004 - Oct. 13 2006	: Linux application programmer with VA-iT Solutions in Rozenburg (continuation of VAI techniek). Continued development of the WCP; added touch-screen interface with modified firefox browser.

Now, combining CGI scripts and HTML, both prepay balance and wireless internet can be sold through the WCP.

Development of the VAIT-box; a black box for linking Banksys' Czam/V cipcard payment devices with any device that has an RS232 interface.

Keywords: CGI script, C/C++, Linux, real-time, payment device coupling, shell script.

Nov. 1 2003 : **Linux application programmer with VAI Techniek in Hellevoetsluis.**

- Developed the [Wireless contact point \(WCP\)](#).

May 31 2004 (bankrupt) Created a payment application for use in vendor machines running embedded linux. This software was developed on and for an (embedded) Linux system using C/C++ and shell script to make the different subapplications work together.

Keywords: CGI script, C/C++, Linux, real-time, payment device coupling, shell script.

Apr. 22 2002 : **R&D engineer With Improvement Design and Advice B.V. in Alphen a/d Rijn**

- Developing an MP3 streaming audio system based on embedded Linux.

Aug. 2002 (bankrupt) This system makes use of an infra-red remote control unit and a Liquid Crystal Display. I have almost singlehandedly designed the system and built the prototype. The biggest innovation of the system is the interfacing with the LCD and the RC unit. The hardware was integrated on a PCB which I also developed myself.

The software was writing in C/C++ and shell script.

Keywords: shell script, C/C++, Linux, real-time, PCB design.

Aug. 1 1998 : **Support Engineer II with the Internal IT department of ACI Worldwide in Gouda**

- Primary support engineer for the UNIX servers: IBM AIX 4.x, SCO Openserver 5,

Apr. 21 2002 Solaris 8 and Linux.

Installing GNU utilities on existing and new systems. This often meant modifying the C(++) source code in order to make it compile.

Implemented a Central NFS, a NIS and a print server for the UNIX subnet.

Writing shell scripts to simplify controlling and monitoring above systems.

Developed and maintained a calltracker system for use by the Internal IT department. This system works with CGI shell scripts on a Linux server running Apache web server.

Keywords: shell script, UNIX system administration, Linux, Apache, software installation, software maintenance.

Mar. 1 1997 : **Programmer/system en network administrator with Pointlogic development in Rotterdam**

- Programming in C++ with Borland's IDE. Implementing new features and creating bugfixes for existing Windows applications. These applications were previously developed by Pointlogic.

July 31 1998 Administrating and setting up the local network and NT server.

Keywords: C/C++, Windows system administration, GUI building, software installation, software maintenance.

Sept. 9 1996 : **Afstudeerproject: Programming a Callcenter server using TAPI with Pointlogic development in Rotterdam**

- Programming in C++ with Borland's IDE. An application/service had to be created that would connect respondents to a callcenter employee as soon as the phone got answered by respondent. This was a dial-out system which would have had to include predictive dialing at a later stage.

Keywords: C/C++, application development, TCP/IP programming.

Mar. 1 1997 : **Various temp jobs for employment agencies**

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July 31 1998 *Keywords: Electrotechnical installations, electronics, computer installation and maintenance.*

(relevant) EXTRACURRICULAR EXPERIENCE

- July 2008 : **Second version of my velomobile direction indicator**
- This is an enhanced version of the project I did from January 2002 until December
Dec. 2008 2002. I managed to reduce the number of PCBs to 2 and the total number of active
components to 4. The PCBs are identical, but only one takes mastery of the bus. In
addition a brake light can be connected to the system. I have used a Cypress
CY8C29466- 24SXI microcontroller in this system. Software was written in
assembly. Software and hardware will be released under a GNU open source
licence and a Creative Commons licence.
- July 2002 : **Writing a UNIX shared library for communicating with my Johnson Millennium**
- **series guitar amplifier.**
now This library uses the MIDI port of the computer to communicate with the onboard
DSP of the amplifier. This way you can read and write presets and the onboard O.S.
or change current parameters on the fly. Since the life of the battery that maintains
the user preset memory is rather limited, this comes in rather handy to save all user
presets to disk and upload them again when you have replaced the battery. When
this battery fails, all 100 "user presets" are restored to a factory default.
When this library has matured enough I'll write an X-windows application first for
uploading and downloading all presets. The next stage of this application will be to
create new presets by dragging and dropping some of the built-in guitar effects in
the GUI. The source code will be released under one of the GNU open source
licences.
- Jan. 2002 : **Direction indicators for my velomobile** (more on my velomobile below).
- It is not possible while driving my velomobile "closed" (with the cover on) to indicate
Dec. 2002 which direction you will take at the next turn, because you cannot point with your
hand from underneath the cover. Therefore I had to design an electronic direction
indicator that met the following demands:
- Acceptable visibility in daylight.
- Very low power consumption due to limited battery power.
I designed 2 digital circuits based on the 4000 series CMOS technology chips: a
"master" and a "slave". The "slave" circuits switch a series of 16 (8 series of 2) high
power LEDs on and off in sequence. The length and speed of the sequence are set
on the "master" circuit. This circuit controls all the "slave" circuits through a simple
serial protocol. This protocol also ensures that all "slave" circuits will remain
synchronized. One slave circuit is mounted on each "corner" of my velomobile,
where they each power 16 LEDs showing which direction I intend to go.
More information can be found on my [velomobile projects page](#) (Dutch page).
- 1995 : **PC multi I/O module designed and built for computer engineering class.**
On the ISA bus card you can connect up to 16 "slave" modules which can each
have 8 bits input and output. Input can optionally be interrupt based. I/O address
and interrupt signal can be jumpered on the card.
- 1992 : **Powered mixer**
Built an 8 channel powered mixer. This included all PCBs, front plate and flight case.
There were no amplification facilities where we practiced with the band, so I built
one myself.
- 1985 : **ZX Spectrum multi-I/O card**
8 bits in, 8 bits out, connected to the expansion bus.

HOBBIES

- Playing music, writing, and recording it with SLab.
- Live Action Role Playing
- Designing and building PCBs, both manually and with CAD systems.

- Using and tweaking the Linux operating system at home (I don't have any other OSes installed on any of my computers.
- Administering my own web server and domain "slabexchange.org".

Notes concerning the above

GNU It's more than just a word or an idea: It's a philosophy.

It would be beyond the scope of this document to try and explain this philosophy.

GNU GPL: De GNU General Public Licence, info at: <http://www.gnu.org/licenses/gpl.html>

LGPL: Lesser (or Library) General Public Licence, info at: <http://www.gnu.org/licenses/lgpl.html>

All about GNU: <http://www.gnu.org/>

I don't drive a car, I drive a velomobile. A velomobile is a recumbent bicycle with an aerodynamically shaped shell. They usually have three or more wheels.

My velomobile is a Quest, they are produced by velomobiel.nl in Dronten, the Netherlands.

More about the "Quest" and the "Mango" at: <http://www.velomobiel.nl/>

SLab is a harddisk recording application (more like a full home studio). With it you can use a PC with Linux and a sound card to record all the tracks of a musical piece and mix them down to a complete song. There is also a range of effects built into SLab which you can use on each recorded track. Nick Copeland is the author of SLab. I do make the occasional patch for the software.

slabexchange.org is the official SLab web site. I just thought this software was so incredible that it deserved its own web site.