



Folkert van Heusden

Nationality: Dutch

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Website:
<https://vanheusden.com>

GitHub:
<https://github.com/folkertvanheusden/>

HAM operator:
N (PD9FVH)

Skills

Programming languages

Advanced:

C, C++, Python, assembly (z80, 8086, MC68000, PDP/11, MIPS, 6502)

Proficient:

Perl, Cobol, C#, HLASM, Java, Javascript, Pascal, PHP

Version control

GIT, SVN (Subversion), CVS, SCCS, RCS, PVCS

Operating systems

Advanced:

Linux: SuSE, RedHat Enterprise Linux/CentOS, Debian/Ubuntu

Proficient:

UNIX: AIX, SUN Solaris, MP/RAS (NCR)
Misc.: OS/2 Warp, Microsoft Windows, MacOS X

Network protocollen

Implemented:

IPv4, IPv6, ICMP, UDP, TCP, SCTP, DNS/MDNS, HTTP, SIP, AX.25, MQTT, PPP, SLIP, NTP, LLDP, NDP, ARP, NRPE, SNMP

Used:

ENUM, HTTP/2, SS7, SNA, X.25, Diameter

IDE's

QT, Microsoft Visual Studio, Keil, Eclipse, Arduino

Volunteering work:

Filmhuis Gouda:

- serving drinks
- projector operator
- developping website
- IT

CSVN (Computerschaak vereniging Nederland):

- boardmember
- maintenance website

Stichting NURDspace:

- boardmember

Experience

GROVER underdogs B.V. 2024-

Designed and implemented in python a tool for scanning large collections of mailboxes for keywords. The output was an excel sheet with meta-data, a collection of EML-files and a Neo4J database to generate relation graphs.

Implemented plugin for TEKLA Structures in C# that finds the optimal placement of concrete floor panels.

Broadforward, 2020-2021

Implementing new functionality, doing performance enhancements.

Working with protocols like SCTP/TCP/UDP, SS7, Diameter, DNS/ENUM, HTTP/2, SIP, etc – telecom oriented.

Primary programming language: C, operating system: Linux (Fedora / RedHat / CentOS), version control: git

BroadForward is leader in intelligent signaling software for 2G/3G, 4G/LTE, 5G, IMS, Fixed, Wi-Fi, IPX and M2M/IoT networks.

BroadForward delivers core network products for routing, interworking, security and number portability.

Profound, 2018-2020

Developing and maintaining embedded applications as well as supporting applications for windows and linux. The targets were measurement devices.

Worked with: C, C++, Python, SVN, GIT, Keil, ARM, QT

Profound develops and manufactures pile testing equipment and geotechnical monitoring systems for professional use.

Cornerstone, 2016-2018

Working on migrations from one (programming) language to another.

Worked with: C, C++, COBOL, PL/1, HLASM, SVN

Cornerstone is providing services and software solutions for the analysis, documentation, quality measurement and automated modernization of legacy software and databases.

Certificates:

LPIC 1 en 2	2010
VMware VCP4	2010
AIX SystemP (223) administration	2009
AIX Support	2009
IBM Storage sales	2008
VMware VCP3	2008
SuSE Linux	2007
SUN Solaris 9	2006
ITIL	2005

Zarafa, 2014-2016

Working on an open source groupware solution written in C++ and Python. Implementing new features, fixing bugs in existing code, packaging. Agile/scrum environment.

Worked with: Linux (Debian, Ubuntu, RedHat, SuSE), C++, Python, Javascript, MAPI, SMTP, iCAL, VCAL, HTTP, HTML, MIME, gdb, valgrind, Jira, Stash, SVN (Subversion), GIT, Coverity

MCOM (Scheidt & Bachmann) 2011-2014

Developing on an embedded Linux system (for topping up the balance of an OV-chipkaart as well as retrieving travel products) using C++, bash scripting and python. Creating tools in Java and C++ on microsoft windows.

Worked with: Linux (Debian, embedded), C++, Python , ISO 7816, ISO 14443 (Mifare) cards, OV-Chipkaart, SVN, GDB, Valgrind

BP Solutions, 2006 – 2011

Worked as a developer / devop.

Development of applications in C/C++, Java, PHP and Perl on Linux, AIX, Windows and a 8051 based embedded platform.

Administration, installation, configuration and monitoring of AIX/IBM SystemP systems with LPARs, Linux systems (SuSE & RedHat on Intel and SystemP).

Worked with: C/C++, Java, PHP, Perl, GDB, Valgrind, Linux (SuSE, RedHat, Debian), AIX, Nagios, IBM Director, Vmware

AMC (“Amsterdam UMC”), 2005 – 2006

Worked there as a “devop”.

Development of tools for monitoring of a large network consisting of Linux, Windows and proprietary systems.

Installation, configuration and maintenance of RedHat Linux and SUN Solaris systems.

Worked with: C/C++, Perl, PHP, Linux (RedHat), SUN Solaris 9,

Nagios

NCR, 1997-1998

Wrote datacommunication layers, Active X components and daemons for embedded (8051 processor) and Windows NT platforms in C, C++ and Visual Basic (interfacing proprietary protocols, TCP/IP and X.25). Also worked with and wrote software for handling chipcards. Designed and implemented monitoring system for point-of-sale terminal. System administration of Linux and NCR MP/RAS UNIX systems.

Worked with: C/C++, Visual Basic, Windows NT, SCCS/Cadese, ISO 7816, NCR MP/RAS, TCP/IP, X.25

De La Rue, 1997

Reverse engineered money sorter device, design and implementation of software to manage the money sorter.

Worked with: C++, Windows NT

Notable open source software projects

IPFixer

<https://github.com/folkertvanheusden/ipfixer>

This program receives IPFIX, NetFlow v9 and NetFlow v5 data and stores this in a database (MySQL, MongoDB, PostgreSQL or InfluxDB).

IESP

<https://github.com/folkertvanheusden/iesp>

I designed and wrote an iSCSI target firmware for microcontrollers. It also runs on regular servers.

MyIP

<https://github.com/folkertvanheusden/MyIP>

This is an implementation of an IP-stack (IPv4/IPv6). It runs in userspace on Linux, is written in C++ and also has build-in servers for NTP, VNC, SIP (VOIP), MQTT, HTTP and others.

Chess and baduk programs

<https://vanheusden.com/chess/>

I have designed and implemented chess programs. Chess programs are programs that you can play chess against.

I've also written Go (Baduk), Ataxx and Stratego "artificial intelligent" software.

Emulators

<https://vanheusden.com/emulation/>

I have written software that "emulates" several computer systems: C64, PDP/11, MSX, SGI/Indy, ZX Spectrum and the PC/XT are such systems. Implemented in C/C++, C# and Python.