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Professional Objective

With my academical background in Computer Science (a degree from the renowned University of Karlsruhe), and specialisations in **compiler construction** and **programming languages** this is where my experience and my skills can be made best use of :

script development on UNIX (incl. Linux and Solaris) and Cygwin in perl, ruby, shell, and python, for various purposes.

development using compiled programming languages like Ada and C;

developing XML specifications using RELAX NG;

(supporting) build and/or release management incl. the deployment process;

operational system support (OSS);

implementation of test suites.

I am very much interested in *re-playable web interfaces*. What do I mean by that? Recording the interaction between browser (Firefox running LiveHTTPHeaders, resp. IE running ieHTTPHeaders), and making the traffic re-runnable resp. re-playable with parameters. I have software in use, that supports that method, and also software created by that method.

I am also very much interested in HR-XML (*XML in/for Human Ressources*), so far I am using its **Resume** module. I would love to create RELAX-NG grammars from the XSD originals of all of the HR-XML modules, and also to make all that part of a nice and useful group of application.

Skills

languages: German (as a native speaker), English (much in use), French.

Computers/Software/Operating_Systems/Unix/Shell: Bourne shell (sh), C-shell (csh), Korn shell (ksh), msh, bash, zsh.

Computers/Programming/Languages/Interpreted: perl, ruby, python, Tcl/Tk+expect, awk, snobol/spitbol, various LISP-s including xlist.

Computers/Programming/Languages/Compiled: C(and C++), Ada, Modula-2, Pascal.

Computers/Programming/Languages/Assembly: Intel 8080, Motorola 68k, IBM 370.

Computers/Software/Networking/File_Transfer: rsync, wget, curl,

various other UNIX utilities (Computers/Software/Operating_Systems/Unix/Shell/Scripting): sed, seq,

Computers/Programming/Compilers/Compiler_Construction_Kits: LEX, YACC, regular expressions, DIANA, IDL, Attribute Grammar Systems.

Computers/Software/Databases/Relational: sqlite, MySQL, Oracle, PostgreSQL, Sybase, Informix, GeminiRDBMS.

Computers/Software/Operating_Systems/Unix: Linux(SuSE, Redhat, CentOS), SysV R4, Solaris, BSD, SunOS, Cygwin.

Computers/Software/Operating_Systems / others: Microsoft Windows..., Mac OS X, VMS, BS2000.

batch control software: AutoSys, crontab.

Computers/Software/Configuration_Management incl. source code control software: Subversion, CVS et. al., RCS.

Computers/Software/Build_Management/Make_Tools: make, rake(make à la ruby), Ant.

Computers/Software/Build_Management/Build_Manager_Tools - "continuous integration":
CruiseControl.

text publishing using markup languages (Computers/Software/Typesetting): DocBook, texinfo, troff (mm, man, me, ms).

text publishing using WYSIWIG (Computers/Software/Word_Processors): Microsoft Word, FrameMaker, Interleaf.

Computers/Software/Word_Processors: Microsoft Excel, Lotus-123.

Computers/Data_Formats/Markup_Languages/{XML,SGML}: Ant, xmlresume, DocBook,

Computers/Programming/Languages/.../WWW/Web_Frameworks: rubyonrails, CGI.

CASE -- computer-aided software engineering: methodologies, graphical design and specification tools, documentation tools, code generation tools.

CASE: methods for specification, design: automaton and finite state machine, class and inheritance, composition, entity-relationship model.

CASE: design and specification tools: Teamwork (SA/RT), SADT, dia, graphviz.

Employment History

managing partner

Aleph Soft GmbH (Berlin, Germany)

January 1999–Present

operating systems: UNIX (Linux (SuSE)), Mac OS X, Microsoft Windows

Projects:

- *AVM FRITZ!Box port 1012:* telephony events ... (in ruby)
- *call record of the PBX built into the Internet router AVM FRITZ!Box:* web-server communication through libcurl (in perl)
- *Account statement Postbank.de:* web-server communication through libcurl (in perl)
- *Account statement Berliner-Sparkasse.de:* web-server communication through libcurl (in perl)

software developer and trouble-shooting

Hamburger Sparkasse (Hamburg, Germany)

November 2009–May 2010

developing software using the Python scripting language and also Java, using Oracle 10, all on Microsoft Windows; trouble-shooting.

Projects:

- the customer upgrades to "Opics Plus", Misys.com's OTC derivate trading platform. interfacing software has to be created.
- making use of JasperSoft's report generation software suite (iReport, JasperReports (BI)); that included extending code written in Java.

software developer

Krauss-Maffei Wegmann (Kassel+Munich, Germany)

May 2008–August 2009

developing real-time software in Ada (Aonix's ObjectAda) on Linux and Microsoft Windows, targeted towards an embedded system, communicating there using CANopen over a fieldbus.

creating Ada code from my CANopen XML using perl, shell, and ruby Makefiles aka Rakefiles.

Projects:

- the project needed new data messages in the CANopen area (a field-bus communication protocol); the legacy CANopen Ada *marshaling* code looked difficult to maintain and enhance, and it seemed worthwhile generating that code from an XML-ish specification, incorporating the CANopen data objects and messages and also details on bit record layouts; the XML-ish specification itself got defined by myself, the XML with the project details got filled out (for a couple of projects), code generators got implemented in perl, the project progressed.
- communication with several devices through these CANopen messages got implemented.

software developer

Rheinmetall Defence Electronics (Bremen, Germany)

March 2008–April 2008

developing software in Ada (GNU Ada aka GNAT) and C on Debian Linux.

Ada, shell, and ruby Makefiles aka Rakefiles.

Projects:

- talking to a NovAtel OEMV GPS receiver through RS232 in C the POSIX way; providing Ada bindings to this interface; using GNU Ada (GNAT) under Debian Linux.
- setting up a proprietary RS422 interface with Linux device driver sources provided by the vendor (FarSync.co.uk); talking to an *Initial Measurement Unit* through that RS422 interface in C; providing Ada bindings to this RS422 interface (project regrettably aborted right in the middle).

software developer and trouble-shooter in "Build&Release&Deploy"

ImmobilienScout (Berlin, Germany)

August 2007–December 2007

maintaining resp. developing ruby, perl, Ant, ... scripts; tagging releases in subversion; managing hot fixes; dealing with ticket / bug tracking systems; enhancing the wiki; operating systems: UNIX (Linux (Redhat resp. CentOS)), Microsoft Windows.

ruby, perl, shell, and ruby Makefiles aka Rakefiles.

software developer

HP (Böblingen, Germany)

July 2006–September 2006

software development: UNIX, SGML, shell, perl, C, DSSSL (SGML style sheets)

software developer, OSS staff

orange.NL (wanadoo) (Amsterdam, The Netherlands)

April 2006–June 2006

perl, shell, enhancing the wiki, OSS: production monitoring using Big Brother, operating systems: UNIX

software developer, OSS (incl. trouble-shooting) staff

Allianz Asset Management, IDS (Munich, Bavaria, Germany)

April 2002–July 2007

perl, DBI, shell scripts (bash, zsh), Oracle, Postgres, UNIX (Solaris); interfacing the big market data vendors (Bloomberg, Citigroup, Deutsche Börse, ...); training staff. trouble-shooting.

Projects:

- design (FSM oriented), implementation and operation (OSS) of a retrieval+extraction+transformation +loading+post_process+exporting system -- (x_spooling, files.pl)
- JHwis -- Web (Interface) Scripting (using libcurl and perl): robust scripted traversal of web pages and filling out of form fields in order to download files.

software developer, OSS (incl. trouble-shooting) staff

Commerzbank Frankfurt, Investment Banking, Risk Management (Frankfurt am Main, Germany)

December 1998–June 2001

OSS: Panorama Collateral (collateral management), RiskWatch and more Risk Management systems; add-ons in shell (bash), perl, CGI, UNIX (Solaris). trouble-shooting.

software developer

Derwent Information (Thomson Information) (London, United Kingdom)

January 1998–December 1998

data conversion in perl; shell (bash); web GUI in perl/CGI; UNIX (Solaris); Y2K work.

software developer, OSS staff

Salomon Brothers (CitiGroup) (London, United Kingdom)

July 1997–December 1997

Projects:

- perl, shell (ksh, bash), database extractions in perl/DBI aimed at Sybase and Oracle; design-oriented reverse engineering, creating an ER-model; operating systems: UNIX (Solaris)

- automated scanning of ASCII report files; operating systems: UNIX (Solaris)

software developer and trouble-shooting

*Zurich Insurance (BAT Group); the risk management department (Zürich, Switzerland)
March 1997–July 1997*

RiskWatch: OSS, customer add-ons in perl, shell (bash), automating their data retrieval.; operating systems: UNIX (Solaris)

software developer, configuration manager

*Agfa-Gevaert (Antwerpen, Belgium)
August 1996–February 1997*

Projects:

- design-oriented reverse engineering, maintenance, development, training, controlling a proprietary RCS-based multi-platform source code control system (implementation details: UNIX (Solaris), Microsoft Windows, Mac OS pre-9; C, shell (Bourne, Korn, C), perl, Tcl/Tk, GUI builder SpecTcl)
- maintaining and refining Makefiles of different flavours
- evaluating Microsoft's Visual SourceSafe

software developer

*GLI (Munich, Bavaria, Germany)
May 1996–August 1996*

GUI implementation in Tcl/Tk for an EDI / EDIFACT system; supplying extensions to the Tcl system, actually in C++; shell (bash); setting up a source code control system based on RCS; training staff on that; operating systems: UNIX (Solaris).

software developer

*Peek Traffic (Manchester, United Kingdom)
February 1996–April 1996*

implementing test suites in Tcl and "expect"; training staff in Tcl/Tk, "expect", UNIX, shell, GNU emacs; operating systems: UNIX.

a mixed software role

*Deutsche Telekom, R&D (Berlin, Germany)
December 1995–January 1996*

NNTP server, Apache -- S/W porting, set up, and training.

software developer

*EADS / DASA Space Division (ERNO) (Bremen, Germany)
April 1995–September 1995*

Ada, C, Oracle, xview GUI library.

Projects:

- Columbus Ground System
- Mission Database Access

HTML programmer

*Technomedia GmbH (Berlin, Germany)
February 1995–March 1995*

HTML.

Projects:

- converting texts from the **frontpage** magazine to HTML

software developer

*Sietec Systemtechnik; Project Compact Archive (Berlin, Germany)
1994–1994*

customization, scripting in awk and perl, maintaining S/W in C++ and shell (bash, ksh).

software developer

Sietec Systemtechnik; Project IN-DBPT (Berlin, Germany)

1992–1993

Projects:

- implementing an automated testing system in Pascal and perl

software developer

Sietec Systemtechnik; Project OSCAR - S/W for CT and MR medical systems (Berlin, Germany)

1989–1992

using the Teamwork CASE system (following the OOA/OOD methods of Yourdon/ DeMarco and Ward-Mellor); developing a code generation system, emitting code for state transition machines described in Teamwork to drive a GUI implemented using the xview library; extracting inline documentation from C sources to provide manuals in Framemaker.

consultant

Sietec Systemtechnik; Kleinod's Ada Competence Center (Berlin, Germany)

October 1988–1989

Ada lectures, compiler evaluation, ...

software developer

Sietec Systemtechnik; the Gemini RDBMS (Berlin, Germany)

March 1988–September 1988

Ada, C, shell (ksh, sh, msh), awk: implementation of the Gemini (later BiiN) Relational DBMS in Ada on OSIRIS.

junior programmer

PCS (Kienzle, Mannesmann), Jürgen Gulbin's office (Karlsruhe, Germany)

1987–February 1988

Projects:

- programming some C stuff like a software packaging facility (shells: ksh, msh)
- a ditroff previewer on X-windows

research help

Fraunhofer Gesellschaft, Röhrich's institute (Karlsruhe, Germany)

1987–1987

Projects:

- porting the RCS to an non-BSD UNIX (Make, shell)

research help

Fraunhofer Gesellschaft / GMD, the Modula-2 group (Karlsruhe, Germany)

1987–1987

Projects:

- porting a chess program from Ada to Modula-2 (Make, shell)
- building and installing the Stroustrup C++ compiler on a non-SysV UNIX
- learning C++
- serving as C++ development environment consultant

junior programmer

Siemens, E85G, Project Gemini (Nuremberg, Germany)

1985–1986

Projects:

- coding test suites for the Gemini (later BiiN) Ada compiler (Make, shell)

research help

Fraunhofer Gesellschaft / GMD, the Karlsruhe Ada Compiler group (Karlsruhe, Germany)

1983–1985

runtime systems, code generators; work done in C, Ada, compiler construction tools, and assembly language (also: shell); under UNIX, BS2000, VMS, bare 68000 based micro processor environment.

research help

University of Karlsruhe, Faculty of Computer Science, Prof. Goos's chair ("compiler construction and programming languages"), the Karlsruhe Ada Compiler group (Karlsruhe, Germany)
1982–1983

bits and pieces of the Karlsruhe Adacompiler targeted at the Siemens BS2000, the Motorola 68000 and the Vax (also: shell).

Projects:

- coding test suites for the Karlsruhe Adacompiler (also: shell)

research help

University of Karlsruhe, Faculty of Computer Science, Prof. Wettstein's chair ("operating systems") (Karlsruhe, Germany)
1981–1982

Projects:

- implementing a disk driver in C for Wettstein's operating system (also: Make, shell)

research help

University of Karlsruhe, data center (Karlsruhe, Germany)
1980–1981

programming languages (Fortran, Algol) consulting hours;

Projects:

- numerical library in Fortran

Education

Diploma in Computer Science (aka Informatik), February 1988. Thesis on Operating System Design in Ada

University of Karlsruhe (TH)

Subjects: compiler construction and programming languages (Prof. Goos) (), information systems, data base systems (Prof. Lockemann) (), operating systems (Prof. Wettstein) ().

- Operating System Design in Ada (Diploma Thesis (Diplomarbeit))
- a runtime system for Ada running on a bare machine with a MC68000 CPU
- a runtime system for Ada running on a UNIX with a MC68000 CPU underneath
- Generating MC68000 Code for Ada (Small Thesis (Studienarbeit) on a code generator for the Karlsruhe Ada Compiler)

Abitur (A-levels), 1978

Gymnasium Laupheim

Professional Memberships

Association for Computing Machinery

1983–Present

German Chapter of the ACM

1983–Present

Gesellschaft für Informatik

1983–Present

Miscellany

I hold subscriptions of the following german IT magazines resp. newspapers: ix (aka *Magazin für professionelle Informationstechnik*), c't (aka *Magazin für Computertechnik*).

Publications

- Jochen Hayek, Michael Thätner, Hans-Stephan Jansohn, Rudolf Landwehr. "Generating MC68000 Code for Ada". *Symposium on Small Systems -- Proceedings of the 1983 ACM SIGSMALL Symposium on Personal and Small Computers*. ACM New York NY, USA. 1983. 81 - 87.
ISBN: 0-89791-123-7

Hobbies

- my son João Gabriel David
- Krav Maga. Israeli martial arts
- Schumann Lieder

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