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Professional Objective

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

I am particularly good at script development on UNIX (incl. Linux and Solaris) and Cygwin in Perl, Ruby, shell, and python, for various purposes,

developing JasperReports,

development using compiled programming languages like AdaC, and Go,

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.

Skills

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

reporting software / Business Intelligence: JasperReports, iReport, JasperReports Server.

virtualization (Computers.Emulators.Intel_x86_Architecture): Oracle VirtualBox.

Computers/Programming/Software_Testing: Selenium, acquired at DigitalPerformance.de(2010-10), supplemented by own read-up, Expect(the Tcl extension).

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

Computers/Programming/Languages/Interpreted: Perl(XML, DBI), Ruby(XML), python, Tcl/Tk+expect, awk, snobol/ spitbol, various LISP-s including xlist (AutoLisp is an xlist derivative).

Computers/Programming/Languages/Compiled: C(and C++), Go,, 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/Spreadsheets: Microsoft Excel, Lotus-123.

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

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

January 1999–Present

managing partner

Aleph Soft GmbH (Berlin, Germany)

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)

August 2011–September 2011

senior software engineer

Loyalty Partner (Munich, Bavaria, Germany)

configuration, build, and deployment management: using the Python scripting language, Maven, Oracle WebLogic Server; methodology: Agile / Scrum

Projects:

- development of deployment management software.

June 2011–July 2011

senior software engineer

groupon (Berlin, Berlin, Germany)

Jaspersoft's report generation software suite (iReport, JasperReports (BI)); PostgreSQL

Projects:

- creating and maintaining JasperReports reports wrapping postgresSQL queries.

November 2010–May 2011

senior software engineer

Real Garant (Zurich Group) (Neuhausen auf den Fildern, Baden-Württemberg, Germany)

developing software using Perl and Java on Linux, PDF forms; Jaspersoft's report generation software suite (iReport, JasperReports (BI)).

Projects:

- the customer replaces hundreds of PDF forms by JasperReports documents. I designed a dedicated and rather dense XML format as a step in between those two. I implemented software in Perl to extract details from those PDF documents into that XML format, and more such software to create JasperReports' XML (JRXML) from that XML format.
- the Java code is good for dealing with the JasperReports' files, JRXML etc.

November 2009–May 2010

senior software engineer and trouble-shooting

Hamburger Sparkasse (Hamburg, Germany)

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.

May 2008–August 2009

senior software engineer

Krauss-Maffei Wegmann (Kassel+Munich, Germany)

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.

March 2008–April 2008

senior software engineer

Rheinmetall Defence Electronics (Bremen, Germany)

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).

August 2007–December 2007

senior software engineer and trouble-shooter in "Build&Release&Deploy"

ImmobilienScout (Berlin, Germany)

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.

July 2006–September 2006

senior software engineer

HP (Böblingen, Germany)

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

April 2006–June 2006

senior software engineer, OSS staff

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

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

April 2002–July 2007

senior software engineer, OSS (incl. trouble-shooting) staff

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

Perl, DBI, shell scripts (bash, zsh), Oracle, PostgreSQL, 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.

December 1998–June 2001

senior software engineer, OSS (incl. trouble-shooting) staff

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

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

January 1998–December 1998

senior software engineer

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

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

July 1997–December 1997

senior software engineer, OSS staff

Salomon Brothers (CitiGroup) (London, United Kingdom)

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)

March 1997–July 1997

senior software engineer and trouble-shooting

Zurich Insurance (BAT Group); the risk management department (Zürich, Switzerland)

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

August 1996–February 1997

senior software engineer, configuration manager

Agfa-Gevaert (Antwerpen, Belgium)

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

May 1996–August 1996

senior software engineer

GLI (Munich, Bavaria, Germany)

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).

February 1996–April 1996

senior software engineer

Peek Traffic (Manchester, United Kingdom)

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

December 1995–January 1996

a mixed software role

Deutsche Telekom, R&D (Berlin, Germany)

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

April 1995–September 1995

senior software engineer

EADS / DASA Space Division (ERNO) (Bremen, Germany)

Ada, C, Oracle, xview GUI library.

Projects:

- Columbus Ground System
- Mission Database Access

February 1995–March 1995

HTML programmer

Technomedia GmbH (Berlin, Germany)

HTML.

Projects:

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

1994–1994

software engineer

Sietec Systemtechnik; Project Compact Archive (Berlin, Germany)

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

1992–1993

software engineer

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

Projects:

- implementing an automated testing system in Pascal and Perl

1989–1992

software engineer

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

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.

October 1988–1989

consultant

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

Ada lectures, compiler evaluation, ...

March 1988–September 1988

software engineer

Sietec Systemtechnik; the Gemini RDBMS (Berlin, Germany)

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

1987–February 1988

junior programmer

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

Projects:

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

1987–1987

research help

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

Projects:

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

1987–1987

research help

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

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

1985–1986

junior programmer

Siemens, E85G, Project Gemini (Nuremberg, Germany)

Projects:

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

1983–1985

research help

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

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.

1982–1983

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)

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 Ada compiler (compiler, Ada, also: shell)

1981–1982

research help

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

Projects:

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

1980–1981

research help

University of Karlsruhe, data center (Karlsruhe, Germany)

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

August / September 2011: studying Pragmatic Programmers' "Agile in a Flash: Speed-Learning Agile Software Development"

September 2011: "A Tutorial for the Go Programming Language"

September 2011 : studying o'Reilly's "Mastering Git"

September 2011: studying o'Reilly's "Big Data Glossary / A Guide to the New Generation of Data Tools" (NoSQL Databases (MongoDB, CouchDB, Cassandra, Redis, BigTable, HBase, ...), MapReduce (Hadoop, ...), Storage (S3, HDFS), Servers (EC2, Google App Engine, Elastic Beanstalk, Heroku), Processing (R, Yahoo! Pipes, Solr/Lucene, ...), NLP = Natural Language Processing, Machine Learning, Visualization, Acquisition, Serialization)

September 2011: studying o'Reilly's "Managing Infrastructure with Puppet / Configuration Management at Scale"

July 2011: *Jaspersoft v4.1 Technical Training*

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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