Michael Michels

Partnachstraße 7, D-81373 München, Germany phone: +49 89 76975252, mobile: +49 179 2958994

fax: +49 89 76975363

e-mail: Michael_Michels@t-online.de, Michael@MMItech.net CV: http://mmitech.net/Michael/cv/

1 Personal

born: 1965

experience since: 1990

-

nationality: German

languages: English, German, Polish

Positions: Software Development/Programming (system, WWW, databases), Configuration Management, Project Management, Organization/Coordination, Quality Control, Testing, Support

I am a highly qualified, versatile IT-Professional. I am very good at analysis and problem solving. I work fast, independent and deliver high quality results. I am dependable and self motivated. I can organize myself and others well and am ready to take on the responsibility. I communicate and work well with others and am always ready to help.

1.1 Education

09/1992 - 01/1996 Master of Science in Computing Science, University of Alberta, Edmonton, Alberta, Canada. Thesis title (short): Correct Programs from Mathematical Proofs.

Thesis: The subject of my thesis was the extraction of error-free programs from the constructive steps in the mathematical proofs of the results in a formal proof verification system. A prototype implementation of such an extraction process was the practical outcome.

Courses: Operating-Systems, Theory of Computing, Algorithms, Formal Specifications, Symbolic Algebra.

09/1986 - 04/1990 Bachelor of Science with Honors in Computing Science, University of Alberta, Edmonton, Alberta, Canada.

Computer courses: Computer Languages, Formal Logic, Theory of Computing, Algorithms, Computer Architecture, Artificial Intelligence, Compiler, Operating Systems, Computer Graphics, Databases, Software Engineering, OO Design, Numerical Analysis, Computer Networks, Parallel and Distributed Systems.

Other courses: Mathematics (Algebra, Analysis), Applied Statistics, Physics (Mechanics, Wave Motion, Electricity), Literary Writing.

1.2 Awards

05/1989 - 08/1989: NSERC Undergraduate Student Research Award.

06/1988: Dean's Honor Roll.

05/1988 - 08/1988: NSERC Undergraduate Student Research Award.

06/1987: Dean's Honor Roll.

06/1987: The J.W. Campbell Memorial Prize in Mathematics.

2 Skills

2.1 programming languages:

C/C++ (UNIX & Windows), Java EE, Perl, bash/sh/csh/ksh, awk, sed, PHP, JavaScript, C# (.NET), Windows Batch/Cmd/PowerShell, Ruby on Rails, Python, Visual Basic (.NET), Smalltalk, Lisp, Prolog, Pascal

2.2 databases:

Oracle, PL/SQL, PostgreSQL, MySQL, MS-SQL, Sybase, SQL, dbm/gdbm, SQLite, JDBC

2.3 WWW:

PHP, DHTML/JavaScript, HTML/XHTML/CSS, XML/XSD, Apache Server, CGI, HTTP, Java-Applets/-Servlets, Tomcat, JBoss, IIS, .NET, Netscape Server

2.4 operating systems:

UNIX (Linux (Rad Hat, Ubuntu, SUSE)/BSD/Sun Solaris/HP-UX), X Windows, MS-Windows, Windows-Server, DOS, OS/2, Virtual Machine Hypervisor (VMware, KVM, Xen)

2.5 networks:

client/server development, distributed/parallel programming, TCP/IP Sockets, UNIX Tools, SSH/SCP, OpenSSL, Windows Tools, Samba, DHCP, DNS, FTP, LDAP, IMAP, NIS, NNTP, POP3, SMTP, SNMP, firewall configuration, router configuration, LAN, WAN, VPN, Novell, wireless, ethernet

2.6 software development:

Object-Oriented-Architecture/-Design/-Programming, gcc, make, CMake, Git, Subversion, Rational ClearCase, Jenkins, Hudson, CVS/RCS, Perforce RCS, Java EE/EJB/JDK/JECF, Maven, Eclipse, QT, QML, QT-Script, Serena Dimensions, lex/yacc, Microsoft C/C++, Microsoft C#/.NET, ODBC/JDBC, Borland C/C++, RPMs, MATLAB

2.7 text processing/office/editors:

emacs/vi, LaTeX/TeX, OpenOffice, MS-Office, HTML/XHTML/CSS, XML/XSD, SGML, troff, RTF

2.8 hardware:

PC's, network

2.9 other tools:

HP-Server-Automation, HP-Operations-Orchestration, HP-Service-Manager, VMware vSphere, IBM-Endpoint-Manager. Redwood Cronacle/SAP-CPS, IBM Tivoli Workload Scheduler

3 Work History

04/2016 – now Value Transformation Services (UniCredit), Linux Administration. As a Linux server, process automation, and shell script specialist.

Porting of procedures and shell scripts from the IBM Endpoint Manager to the HP Server Automation. Administration of virtual Linux servers. Support for an infrastructure backup project.

Responsibilities:

Porting of procedures and shell scripts of the IBM Tivoli Monitoring system from the IBM-Endpoint-Manager to HP-Server-Automation.

- Analysis of the existing procedures and IBM Endpoint Manager scripts.
- Implementation of the new procedures and shell scripts in the HP Server Automation tool.
- Testing and deployment.

Administration of the Linux servers of the UniCredit Bank in a VMware environment in an international team.

- Analyzing and solving the problems in the running production system. Administration of the disk storage. CPU load and process management. Analysis of the network disruptions. Processing of incidents and change requests in HP Service Manager tool.
- Installation and configuration of new virtual Linux servers with the help of the following tools: HP Server Automation, HP Service Manager, HP Operations Orchestration, and VMware vSphere.
- Migration and changes to the virtual Linux servers using VMware vSphere.

Support for the infrastructure backup system project. Examination and verification of the backup system. Automation of the process using shell and Perl scripts.

- Preparing shell script for collecting information about the servers.
- Implementation of Perl scripts for analyzing and evaluating the server data.
- Compilation of the results.

Environment: Linux (RHEL), sh and bash, Perl, ssh, rsync, HP Server Automation, HP Operations Orchestration, HP Service Manager, VMware vSphere, IBM Endpoint Manager.

05/2015 - 10/2015 Value Transformation Services (UniCredit, IBM), OSY5 Project. As a shell scripting, Unix systems and process automation expert.

Porting of shell scripts for a banking WWW application deployment system. Automation of processes for building and deploying of customized packages for WWW servers. Automation of security checks of running WWW servers.

Responsibilities:

Migration of shell scripts from Sun Solaris systems to Linux (RHEL). Checking, adapting and testing of shell scripts (sh, Bash) and calls to Unix utilities and applications.

- Development of shell and Perl scripts to analyze shell scripts and filter possible differences between the Sun Solaris and RHEL systems.
- Analysis of the differences and preparing of modifications and applying them utilizing diff and Perl.
- Developing of bash shell scripts for test automation.

Preparation of shell scripts for automation of setting up of WWW based banking application: servers (Apache, Tomcat, JBoss), directory structure for the applications and start-up scripts.

- Building of custom RPM packages: Apache, Tomcat, JBoss, using RPM, bash and Perl.
- Setting up of ssh access using SSL keys and/or passwords on remote servers.
- Transfer of software packages: Apache, Tomcat and JBoss, and remote installation and configuration with help of ssh, RPM and bash.
- Setting up of environment for the applications on remote servers with help of ssh, rsync, sudo and runuser. Preparation of deployment scripts.
- Development of bash shell scripts to automate and integrate above steps.

Automation of security checks with shell scripts and Unix utilities. Checking security settings of Apache, Tomcat and JBoss servers on remote hosts: certificates/keys, file system permissions and ports. Generation of Excel sheets.

- Preparing of individual security checks: certificates and keys, ownership and access rights, using shell and Perl scripts, LDAP and OpenSSL.
- Integration of individual security checks into test sets for server types.
- Automated compilation of the test results into MS Excel files.

Environment: Linux (RHEL), Sun Solaris, sh and Bash, Perl, ssh, rsync, OpenSSL: certificates and keys, RPM.

04/2014 - 12/2014 Münchener Hypothekenbank eG, IVO-IB. As a batch processing expert and system integrator.

Batch processing and system integration under "Redwood Cronacle 7 / 8": migration and realization of the SUMMIT bank application with 1800+ Jobs. Migration of "Redwood Cronacle 7" to "Redwood Cronacle 8 / SAP-CPS".

Responsibilities:

Migration and realization of processes of the SUMMIT bank software with over 1800 jobs in the "Redwood Cronacle 7" batch processing system. Development of Perl, shell, make and PL/SQL scripts for the automated conversion. Analysis and optimization of the system processes.

 Development of Perl, shell, PL/SQL and make scripts for the conversion of over 1800 batch jobs of the SUMMIT bank software. Export of jobs and job chains from the "Redwood Cronacle" system. Conversion of jobs and job chains. Import of new versions into the "Redwood Cronacle" system. Testing of the new batch processes.

- Analysis and optimization of batch process.
- User support of the "Redwood Cronacle 7"-System

Migration of jobs and job chains from "Redwood Cronacle 7" into "Redwood Cronacle 8 / SAP-CPS". Conversion of jobs from PL/SQL into Java EE. Development of Perl, shell, make and PL/SQL scripts for the automated conversion.

- Development of a Java library for extended job control in the "Redwood Cronacle 8 / SAP-CPS" system: Java packages and classes, database tables, preparation of JAR files, Redwood-Expression-Language (REL) interfaces, shell, Perl and make scripts.
- Export of jobs and job data from the "Redwood Cronacle 7" system: PL/SQL, shell, Perl and make scripts.
- Import of jobs and job chains in the "Redwood Cronacle 8 (SAP-CPS)" system: Java, Perl, shell and make scripts, XML files.
- Testing of new batch processes: Java, Perl, shell and make scripts.

Environment: "Redwood Cronacle 7", "Redwood Cronacle 8 / SAP-CPS", Java EE, Oracle PL/SQL, Perl, Shell, XML, Make, Git, Windows Batch/Cmd/PowerShell, Windows 7, Cygwin, Windows Server 2003/2008

01/2014 - 03/2014 ADAC e.V., IVA ITO ITI. As a system analyst, architect, integrator, developer and administrator.

Batch processing and system integration: development and maintenance of Perl scripts under Windows and "IBM Tivoli Workload Scheduler".

Responsibilities:

- Development and maintenance of Perl scripts for an "IBM Tivoli Workload Scheduler" system under Windows XP.
- Integration and control of different system components: e-mail (MS Exchange Server), databases, print-systems and Web-services.
- Collecting, processing, encrypting, packaging and distributing of files among internal and external sources and destinations: Perl, GPG, Zip, sftp.
- Optimization of batch process: analysis of requirements and realization of suggested solutions. Analysis and optimization of existing job chains.
- Maintenance and support of the "IBM Tivoli Workload Scheduler" system: daily analysis and correction of errors.
- Installation and maintenance of system components: ActivePerl, MS IIS/WebServices, Tectia-Ssh.

Environment: Perl, batch/cmd, "IBM Tivoli Workload Scheduler", Windows XP, IIS, Web-Services, .Net, sftp, zip, Git

03/2013 - 09/2013 Siemens AG: software development for CIT OA. As network and DNS expert.

- Setup and configuration of master, slave and cache DNS servers: Bind 9.6, Linux (SLES 11.2)
- Adaptation and development of configuration scripts to generate zone files: Perl, Shell (Bash)

- Database development to store domain and host data using MySQL database: tables, views, triggers, functions
- Adaptation and development of a DNS data management system: web forms (Apache, PHP, HTML/CSS), database interface (PHP/MySQL)
- Migration of the domain and host data: data customization, data loads (Perl, Shell, MySQL).
- Setup of a DNS test system: scripts for the test automation
- Administration of a DNS system, documentation

Environment: Perl, Shell, Linux (SLES 11.2), Bind 9.6, MySQL, Apache, PHP, HTML/CSS, Git

04/2012 - 10/2012 Intel Mobile Communications: SW-Development for OptiCM/ARTS as an analyst, architect, developer, administrator and support

Responsibilities:

- OptiCM tool chain stability and performance optimization
- Software enhancement and new development in Perl, shell, text-tools
- XML test request validation in XML/XSD, Perl and shell
- Operations support for OptiCM/ARTS tool chain: roll-outs, day-to-day activities
- Performance optimization of the existing OptiCM/ARTS environment

Environment: Perl, Shell scripts, Windows batch scripts, ClearCase, Git, Linux, SunOS, Windows

06/2011 - 03/2012 OPTION Germany GmbH. As system analyst/architect, developer and tester.

Development of a build system and functionality tests in a continuous improvement environment.

Responsibilities:

- Setup of a "Continuous Improvement" environment for the automation of application build processes, testing and quality control
- Integration of the existing systems.
- Testing and evaluation of the environment
- Design and development of the functionality test tools for a network connection application for mobile devices in the QT/QML framework.

Environment: Jenkins, Shell scripts, Ruby on Rails, Perl, Perforce RCS, Maven, Hudson, CCCC (C and C++ Code Counter), Linux, MacOS and Windows, C/C++, QT, QML, Ruby on Rails, QtScript/JavaScript, CMake, Xcode, Visual Studio, VMware, Xen

01/2011 - 12/2011 Smartblue AG: Database-System for collecting and analyzing of voltaic data from solar cells as a software architect, developer and tester.

- Design and development of database for collected measurement data.
- Development of Perl and shell scripts for automation of data loading and analysis.

- Design and development of the WWW interface for displaying data and analysis results.
- Support of the development of the data collection devices.
- Setup, Configuration and support of servers and application.
- Database interface for MATLAB.

Environment: Linux-System, MySQL-Database, PostgreSQL-Database, Apache-HTTP-Server, PHP/HTML/JavaScript, Perl, Shell, Java-Applets, MATLAB

08/2010 - 03/2011 Kabel Deutschland GmbH: Data-Platform Network Analytics as an Database Architect and Developer and Tester.

Responsibilities:

- Hardware and Software System-architecture for a Data-Warehouse-Database. Specification of used hardware and software components, installation, configuration, implementation and administration of the system.
- Development of the database model
- Data conversion and integration from various sources. Optimization of the SQL queries.
- Automation of processes: development of PL/SQL, shell, Perl and Windows scripts for automation of data loading and system administration.
- Preparation of documentation.
- Monitoring tools in Java.

Environment: HP-Server, SUSE-Linux, Oracle 11g, Oracle SQL Developer, Java.

09/2009 - 09/2010 OSRAM GmbH

Support, Archiving and Job-Management in the area of infrastructure / Redwood Cronacle.

Responsibilities:

- Development of Oracle-PL/SQL and shell scripts for preparation of job control reports. Technical environment: Oracle 10g, Sun-Solaris, Redwood Cronacle 7, SAP-ABAP.
- System support.

01/2009 - 09/2009 MMItech.net

Design and Development of database applications for Internet/Intranet under Linux/UNIX using Apache HTTP server, with PostgreSQL, MySQL and Oracle databases, with PHP and Perl scripts, and with an HTML/JavaScript user interface.

- Central configuration system for ISP related products: access accounts (dial-in, leased-line, DSL and VPN), email accounts, routers, domain and server hosting, with interfaces to RADIUS, Billing, DNS, Email and third party order systems. It assists in and records the configuration process from order entry until the installation and activation.
- Central user administration system for enterprise wide configuration, enforcement and auditing of user access rights to computer resources and software licenses.

• Trouble tracking and resolution subsystem.

Environment: Linux, PHP, HTML/XHTML/CSS, Perl, PostgreSQL, MySQL, Oracle, Apache-HTTP-Server.

04/2005 – 12/2008 Siemens / Siemens Networks / Nokia Siemens Networks in Mobile Networks: development of the Next Generation RNC for UMTS and for LTE. As the IT-Consultant my responsibilities included:

- Development and support of shell and PERL scripts for generation of an XML configuration file for the LBTS system software.
- Development of scripts for automation of a software import processes from Serena-Dimensions into ClearCase.
- Development and support of shell scripts for interfacing between CruiseControl and software build systems.
- Porting of batch processes from Windows to Linux in a software build environment.
 - automated translation of ".bat" scripts into PERL and shell under Linux
 - development of PERL and shell scripts for automated conversion of configuration files
 - support and modifications according to Windows versions
- Design of concept of an LTE quick tests.
- LTE demo test for Mobile World Congress 2008 in Barcelona
 - cooperation on a design of a high bandwidth HD-video test for an LBTS
 - cooperation on the development and testing of a high bandwidth HD-video test application for an LBTS: network and stability
- Physical-Layer-Downlink-Tests.
 - development of an application for checking of IQ-data from an LBTS in $\mathrm{C/C}++$
 - development of PERL and shell scripts for analyzing of the IQ-data from an LBTS and comparing it with sample data from MATLAB simulations
 - performing of tests and analysis of the IQ-data from an LBTS
- Testing of NodeB DSP software: preparing and executing of test scripts in PERL for an NB8xx-CHC96 with the use of a JTAG interface.
- Testing of the RNC software on target hardware, test tools development in shell and PERL.
 - shell scripts for resetting and loading of software and executing of test programs
 - shell scripts for remote control of test cases in lab-network from the development network with use of ssh
 - automation of "quick tests" after software build
- Development of an application in C/C++ for testing of the interfaces in a control module on the NodeB.
 - analysis of the interfaces and their header files and XML specification
 - design and realization of the application: templates and program structure in $\mathrm{C/C}++$

- PERL scripts for automated generation of programs from the header files.
- testing, documentation and training of users
- version control under ClearCase
- Software management in ClearCase.
 - development of various shell and PERL scripts for automation of software build processes and quality control
- **Environment:** UNIX (HP-UX, Sun-Solaris, Linux), C/C++, gcc, make, Java, TCP/IP-Sockets, Perl, Unix-Shell and -Tools, Ssh, Ftp, Rational ClearCase Serena Dimensions, Windows, Matlab, JTAG
- 04/2007 07/2007 Tentaclion GmbH: modification and extension of uCLinux-Firmware for a TNT-ST-SENS8/16 module.

Development of a client/server application for synchronizing of data streams from many measurement modules up to a micro seconds interval without a real time support.

Responsibilities:

- Design, implementation and testing of programs in C in a uCLinux embedded environment on ARM based boards.
- Modification of custom hardware specific kernel modules.
- Creation of a trigger and monitoring mechanism with a WWW interface: CGI, HTML, JavaScript.
- setup of a software development environment under Subversion.

Environment: Linux, Embedded-Linux (uCLinux), C/C++, gcc, make, Shell-CGI, HTML/JavaScript, Hardware, Subversion, ARM.

09/2004 - 03/2005 Development of system software and drivers in the embedded-Linux area for SIEMENS ICN/COM Information and Communication Networks. As a consultant I worked on the following projects:

Responsibilities:

- Extension and enhancement of the "Common Input/Output" system for the main controller of the network-carrier-controller.
 - Creating new and extending the existing interfaces to monitor and diagnose hardware components. Programming in C/C++ under Linux.
- A reliable client/server storage system for storing of the configuration data in an embedded system. The features included transaction processing, fault tolerance and a hot standby backup.
 - Specification, design and realization of the concept.
 - Implementation in C/C++ and Java under Linux.
 - Integration of the application with the existing software components.
- Software management in ClearCase.

Environment: C/C++, Linux, Java, Rational ClearCase.

11/2002 - 04/2004 Development of WWW and/or database applications for HP EMEA Internet and Marketing Services. As a consultant my projects included:

- Online survey/questionnaire generation tool for direct marketing campaign system.
 - Design of application flow, database schema and GUI.
 - Implementation of database schema in MS-SQL server and application flow and GUI in C#/.NET/HTML on a Windows 2K server.
- Analysis of an online content management system.
- Direct online campaign management system with asynchronous control.
 - Design and implementation of the database schema in MS-SQL server.
 - Design and implementation of application flow and GUI in C#/.NET/HTML on a Windows 2K server.
- Online printer diagnostic tools pages in HTML/JavaScript (http://www.hp.com/uk/diagnostics).
- Internationalized general purpose customer registration benefits web pages with content from the Oracle database (http://www.hp.com/go/signmeup).
 - Design and implementation of the database schema.
 - Design and implementation of the application in PHP/HTML/JavaSript.
 - Several redesign phases accommodating marketing department changing needs.
 - Writing documentation and training of support personnel.
- Oracle database for an online direct marketing campaign.
- An image and HTML pages generating tool for internal use.
- Automation of Oracle database updates from an external source. Both feeding and receiving agents were written in PERL and utilized the HTTP protocol.
- Porting and internationalization of a forum application and database to a PHP/Oracle-database environment.
- Porting of Norwegian site to a common shared environment with an Oracle database replication to production function.
- Analysis of an online content management system.
- Christmas Electronic Greeting Card in Java for several countries.

Environment: MS-SQL database, C#/.NET/HTML, JavaScript, Oracle database, PHP, HTTP, Perl, MySQL, Java/Tomcat, Apache-Server

06/2002 - 10/2002 Hewlett-Packard GmbH: migration of the regional European and African WWW sites onto a unified, secured platform with load balancing. As a consultant my duties included:

- Planning and organizing of the site migration: collection and analysis of the content, communication with the content owner and coordination of the site switch (DNS and redirection changes).
- Setup and configuration of the HTTP-Servers: Apache and MS-IIS.
- Adaptation of the HTML, PHP and ASP pages and PERL and shell CGI programs.
- Conversion of the databases from MySQL, MS-SQL, MS-Access and PostgreSQL to Oracle.

- Tutoring content owners on the new HTTP server and content management environments
- Testing and handing back of the WWW sites to the content owner.
- Writing of the Developer-Guide for the new platform.
- Designing and implementing of the data replication solutions for the Oracle database in a load balanced environment

Environment: WWW/HTML, DNS, HTTP, Apache-Server, MS-IIS, MySQL, MS-SQL-Server, MS-Access, PostgreSQL, Oracle

11/2000 - 05/2002 Design and Development of database applications for Internet/Intranet under Linux/UNIX using Apache HTTP server, PostgreSQL database, CGI-Perl scripts and with an HTML/JavaScript user interface.

Responsibilities:

- Central configuration system for ISP related products: access accounts (dial-in, leased-line, DSL and VPN), email accounts, routers, domain and server hosting, with interfaces to RADIUS, Billing, DNS, Email and third party order systems. It assists in and records the configuration process from order entry until the installation and activation.
- Flexible and extensible billing system.
- Central user administration system for enterprise wide configuration, enforcement and auditing of user access rights to computer hardware and software resources and software licenses.
- Trouble tracking and resolution subsystem.

Environment: WWW/HTML, DNS, HTTP, Apache-Server, MS-IIS, MySQL, MS-SQL-Server, MS-Access, PostgreSQL, Oracle

03/1999 - 11/2000 Consulting for Cybernet Internet-Dienstleistungen AG. As an Internet/Intranet and database specialist I led the development and administration of a database system for configuration and management of ISP products: dial-in, leased line and DSL access, VPN, routers, domain and server hosting, mailboxes. My projects were:

- Meetings with the developers and administrators of the old system. Analysis of the old system: the format of the data, HTML input forms and source code review of Shell and PERL programs.
- Collection of input from users of the system. Meetings, conversations and written communications with departments: Order Administration, Network Operation Center, Customer Installations, Support, Billing. Creation of the system requirements.
- Design of the the new System: database schema, GUI, CGI programs, interfaces
 to billing, e-mail, DNS and RADIUS systems, access security and creation of
 configuration files and customer letters.
- Writing of specification after consultations with the respective department heads. Setting and approval of the development plan with the responsible parties.
- Taking the responsibility for the project. Coordination of the development with the concerned departments.

• Implementation:

- Database schema (Oracle 8.x): tables, views, indexes, check and referential constraints, triggers, PL/SQL functions and stored procedures.
- GUI: HTML forms with JavaScript functions for input checking.
- PERL CGI programs for
 - * handling input data from the HTML forms: checking, converting and storing in the Oracle database.
 - * producing router configuration files, welcome and delivery confirmation letters in RTF.
- PERL and Shell scripts for
 - * configuring of RADIUS systems (Oracle and MySQL).
 - * producing configuration files for DNS and e-mail systems.
 - * importing customer and order data from billing systems (Oracle and Sybase).
 - * importing data from the old system and other sources.
- Oracle PL/SQL procedures for updating the billing system with provisioned product data.
- Command line interface written in PERL for accessing information in the Oracle database.
- Access security at HTTP, system and Oracle database levels.
- Preparation of user, system administration and technical documentation.
- Training of users and administrators of the system.
- Implementation of changes and customization of the system with the additional input of the users.
- General support during system crashes and daily administrative tasks.
- Installation and administration of Oracle, Sybase and MySQL database systems, Apache HTTP server and PERL and PERL-modules in Sun-Solaris and HP-UX environments.

Environment: Unix (Sun-Solaris, HP-UX), HTML, JavaScript, CGI (Shell and Perl scripts), Oracle, PL/SQL, Sybase, MySQL, Perl scripts (DBD/DBI), Apache HTTP server, Radius server, SMTP, DNS, VPN, Sysco router.

05/1998 - 12/1998 Consulting for VIAG Interkom GmbH & Co. As an Application Support Specialist in the area of Internet/Intranet I was responsible for installation, configuration and administration of company wide Intranet servers and client applications. I also designed and developed an online User Administration tool. My tasks included:

- Design and development of an administration tool to keep track of user accounts and installed client software. It was developed using Oracle database, Perl and Netscape SuiteSpot servers under HP-UX OS. Including:
 - design of the database under Oracle 7.3.3: database schema, integrity constraints, triggers, stored procedures and multilevel access security.
 - design and implementation of GUI in HTML Forms: HTML and JavaScript.
 - design and development of CGI programs that interface with Oracle database and Netscape Directory (LDAP) Server.

- design and development of the security schema for the CGI programs and Oracle.
- technical and end user documentation: specifications, design, user and administration manuals and operations handbook.
- design and specification of tests for third party testing.
- data conversion and loading from many diverse sources.
- Installation, configuration and administration of Netscape SuiteSpot servers under HP-UX.
- Installation, configuration and administration of Documentum servers under HP-UX.
- Installation and administration of Tuxedo and Staffware under HP-UX.
- Installation and administration of several in house developed applications.

Environment: Unix (HP-UX), HTML, JavaScript, Perl (CGI-scripts, DBD/DBI), Netscape-SuiteSpot-Server, Oracle 7.3.3, PL/SQL, Netscape-Directory-Server (LDAP-Server), Tuxedo-Middle-Ware, Staffware

04/1998 - 04/1998 Consulting at Hypo Bank AG München. As a Network Consultant I was setting up a Reuters TRIARCH backbone for a stock broker dealer system

Responsibilities:

- Layout, configuration and installation of server hardware and software for a network of 30 Sun Ultra servers running Solaris and SunOS 4.3.
- Automation of the configuration and installation processes with shell scripts.
- Setting up of the SNMP administration server.

Environment: Unix (Sun-Solaris, SunOS 4.3), Sun Ultra server, shell and Perl scripts.

06/1996 - 11/1997 Health Online Service GmbH / Employed at Health Online Service Technology GmbH.

As a Senior Development Manager (07 - 11/1997) I was leading and responsible for several software development projects.

- Design and implementation of an online billing system:
 - database development using Sybase SQL server.
 - implementation of server NSAPI and the HTML/CGI interface to the database.
 - automation of installation and upgrade procedures.
 - preparation of user manuals and software documentation.
- Design of single-login access control for distributed WWW service.
- Management of software development planning, timely implementation, release version management and quality control:
 - estimation of needed resources and preparation of project proposals,
 - coordination of tasks among developers,
 - scheduling of deadlines,
 - followup on the current project status,

- evaluation and integration of software modules and preparation of specifications for third party developments,
- design and implementation of testing procedures,
- interviewing candidates.
- Administration of the development infrastructure which included networks, servers and workstations and software:
 - installation, administration and support of software and hardware on UNIX and Windows NT/95 platforms.
 - network configuration and administration of Sun, HP, PC-UNIX and Windows NT/95 servers and workstations and printers.
- Cooperation on EU projects:
 - administration of the SPECIAL project's WWW-server,
 - development of concepts and preparation of research
 - reports.
- Custom tailoring of HOS Technology's software products for special customer needs.
- Conversion of online content from HOS to multimedica platform.

Environment: Unix (Sun Solaris, SunOS, BSD), Sybase SQL server, Netscape server (NSAPI), Windows NT/95, EU cooperation project.

As Project Manager Production (09/1996 - 06/1997) my duties were to setup and administer the WWW server: "www.hos.de" and to develop and maintain online content.

- Electronic correspondence application for physicians (Elektronischer Arztbrief) .
 - database development using Sybase SQL server,
 - development of the HTML/CGI interface.
- Development of online-order applications: development of the interface to the Sybase SQL database using ODBC, JDBC, Sybperl and HTML/CGI programs.
- Automatic/dynamic generation of HTML pages and graphical content.
- Management of development of sub-components from third parties and their integration into the online system.
- Development of CGI and HTTP compliant programs and Java applets.
- Preparation of various HTML content: tables, forms, frames, images and JavaScript modules.
- Development of various applications in C/C++, PERL, Java, UNIX shells and utilities.
- Installation, configuration and maintenance of Netscape Enterprise servers under Sun Solaris operating system.
- Network configuration and administration of UNIX and Windows NT/95 servers and workstations and printers.
- Installation, administration and support of software and hardware on UNIX and Windows NT/95 platforms.
- Cooperation on EU projects:
 - setup and administration of the SPECIAL project's WWW-server,

- development of concepts and preparation of research reports.
- Preparation of proposals, specifications and documentation.

Environment: Unix (Sun Solaris, SunOS, Linux), Sybase SQL server, ODBC, JDBC, Sybperl, HTML, JavaScript, CGI (Perl), HTTP, shell and Perl scripts, EU cooperation project.

04/1996 - 08/1996 Employed at SCHOLZ-Verlag GmbH. Systems development and support and quality control.

Responsibilities:

- Setup of an Apache HTTP server:
 - development of CGI compliant programs,
 - preparation of HTML pages,
 - interfacing with a database servers under Linux operating system.
- Design and implementation of the communication interface between a HOS WWW server and the SCHOLZ drug database server realized in PERL under the Sun Solaris operating system.
- Testing of the database server under Sun Solaris operating system.
- Setup and maintenance of a firewall gateway to the Internet over an ISDN connection
- Setup of access to DOS applications and the Novell network from the Internet.
- Setup and administration of a network of UNIX (Linux and SCO), Windows NT and Novell servers, DOS, MS Windows, Windows 95 and Windows NT workstations and HP network printers.
- Porting of an MS Windows database DLL to OS/2.
- Automation of processes: development of scripts for loading and verifying of data correctness and consistency in the database.
- Testing and support of database servers and applications written in C/C++ for UNIX, Novell and DOS/Windows systems.
- Generating miscellaneous database reports.
- Porting of DOS Clipper programs to UNIX environment.

Environment: Unix (Linux, SCO), HTML, CGI (Perl, Shell), HTTP server, Windows NT/95, Dos, Novell (IPX), TCP/IP, Linux firewall.

06/1992 - 02/1996 Computer systems and network consulting, St.Albert/Edmonton, Alberta, Canada as a computer systems consultant.

Development marketing data analysis applications. Setup of a phone interview database systems. Computer network administration.

- Development of data analysis and data processing software tools for marketing research company using C/C++, YACC and LEX under UNIX, DOS/Windows and OS/2 operating systems:
 - design and implementation of an interpreter for data transformation,
 - design and implementation of a solver for maximum likelihood problem involving large data sets and numerous parameters (distributed implementation under UNIX),

- design and implementation of GUI's for statistical market modeling applications under MS Windows,
- implementation of market models in MS Excel.
- Setup of the phone interviewing database software, C-Survent.
- Development of questioners for interviews, analysis and processing of interview data.
- Setup of a Novell DOS / MS Windows network.
- Setup and maintenance of SCO UNIX server with terminals.

Environment: Unix (SCO), C/C++, lex/yacc, DOS/Windows, OS/2, Novell, C-Survent

09/1992 - 04/1994 Part time teaching assistant at the University of Alberta, Department of Computing Science.

My duties were:

- leading seminars and lab sections,
- marking assignments.
- 09/1990 05/1992 University of Alberta Hospitals, Edmonton, Alberta, Canada. Technical analyst.

Porting of a medical database: Micromedix. Tandem system support. User support. Database development.

Responsibilities:

- porting of DOS and UNIX based medical database, Micromedix, to Tandem system in C.
- Tandem system software and users support.
- operating software development in C: remote access over the phone lines.
- database development: database of problem reports using Focus database package for DOS.

Environment: Unix, DOS, Tandem, C, Windows.

09/1989 - 04/1990 Part time teaching assistant at the University of Alberta, Department of Computing Science.

My duties involved:

- leading seminars and lab sections,
- marking assignments.
- 01/1988 04/1989 Part time mathematics tutor at the University of Alberta, Department of Mathematics.

My duties were:

• helping students who had problems with first and second year university mathematics courses.