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Nationality: Austrian

Languages: German, English

Profile

Experienced developer specialising in server applications, backed by a master's degree in computer science. Versed in several programming languages (incl. C/C++, Python and Java) on Unix and Win32 platforms.

Work Experience

since 1/2008: **Emnico** Technologies Ltd./**Emnico** Services Ltd., Swindon, UK: Senior Software Engineer

12/2005 – 12/2007: **Alcatel-Lucent** (formerly Lucent Technologies), Swindon, UK: Senior Software Engineer

SBS Software Ges.m.b.H., Salzburg: Software Engineer

full time:	11/2001 – 01/2003; 02/2004 – 11/2005
part time:	10/1996 – 6/2000; 10/2000 – 10/2001; 04/2003 – 01/2004
summer internships:	18/07/1994 – 26/08/1994; 10/07/1995 – 01/09/1995; 22/07/1996 – 30/09/1996

02/2003 – 01/2004: **Lebenshilfe Salzburg**, Werkstätte Hallein: community service (as an alternative to Austria's compulsory military service), working with people with mental or multiple handicaps.

03/07/2000 – 22/09/2000: **AT&T Laboratories Cambridge**, UK: summer internship, omni project (automated and improved the omniORB regression testing suite; developed an omniidl and Python based black-box IDL testing tool)

09/1997 – 06/2000: **HTBLA Salzburg**: Linux system administrator (part time)

Emnico Technologies Ltd./Emnico Services Ltd.

- Support and continuous development of an optical network management (SONET/SDH) system in a Unix environment (mostly C++ on HP-UX and Linux).
  key technologies used: CMISE

- Native Win32 application development.
  key technologies used: C++, MFC/ATL, WTL, Win32

Alcatel-Lucent (formerly Lucent Technologies)

- Worked in a global development team on telecom network management software for optical networks (SONET/SDH) in a Unix environment (mostly C++ on HP-UX and Linux).
  key technologies used: CMISE

- Low-level architectural work: porting of the low-level networking code from HP-UX to Linux; developed a debugging memory management library to facilitate detecting and tracking down of memory management bugs.
  key technologies used: low-level networking API on Linux (packet sockets), accessing a program's call stack, reading ELF/SOM symbol table

- Implemented new features according to requirements, tracking down and fixing bugs and crashes. Used programming language and external protocols depending on subsystem.
  key technologies used: C++, Java, SNMP, CMIP

- Developed a scriptable test-client in Java/JavaScript.
  key technologies used: Java, Rhino, XML

SBS Software Ges.m.b.H.

- Developed several Java/JNI libraries to access Win32 specific APIs: i.a. CEN XFS, shared access to the same RS-232 port by multiple processes.
  key technologies used: Java + JNI, C++, script-based automated code generation, multithreading, Win32

- Worked on a J2EE application for monitoring self-service banking terminals: SNMP integration, database maintenance scripts.
  key technologies used: Java + J2EE, WebSphere, SNMP, DB2 SQL

- Prototyped a custom firmware for the Linksys WRT54G to build a cost-efficient, custom security appliance (firewall and VPN).
  key technologies used: Linux, gcc cross compiler, VPN

- Developed a replacement for the standard Windows shell (explorer) for self-service terminals that takes care of starting and monitoring application processes and prevents unauthorized access to the operating system desktop.

key technologies used: C++ using STL and Boost libraries; Win32 API for starting and monitoring processes; COM Automation for inter-process communication and JNI for the Java integration

- Linux server and network administration: set up a centralised directory service, firewall and VPN (IPsec, OpenVPN) configuration.
  key technologies used: Linux, LDAP, Samba

- Developed a highly scalable TCP/IP communication server for statement printers.
  key technologies used: C++ using STL and Boost libraries; multithreaded design using Windows NT's I/O completion ports for high scalability

Education

10/1996 – 10/2001:	University of Salzburg, Department of Computer Science: 5-year course in Applied Computer Sciences leading to a Master's degree ("Dipl.-Ing.") specialised in distributed systems and wrote master's thesis about distributed simulation: "CORBA-based Conservative Distributed Discrete Event Simulation"
09/1991 – 06/1996:	HTBLA Salzburg (secondary technical school for electronics/informatics): "Matura" (A-levels) with distinction

Skills and Interests

- Programming in C, C++ (including STL and some Boost libraries), Java (incl. JNI), Python and PHP with the ability to quickly understand an already existing, complex code-base.
- Programming for Linux/POSIX platforms and Windows NT/Win32.
- CORBA programming using omniORB, omniORBpy, ORBacus and JabORB.
- Developed and currently running JabRSS, an RSS (RDF Site Summary) headline notification service for Jabber/XMPP.
- Contributor to the Open Watcom C++ compiler: major improvements to the C++ front-end (i.e. partial template specialization and partial ordering of class templates, template functions, namespace support and general C++ standard compliance).
- Extended the firmware of the Linksys WRT54G wireless router to support OpenVPN and OpenSWAN.
- Linux server administration (based on Debian GNU/Linux and Ubuntu): Apache, bind, PowerDNS, CVS, DHCP, exim, Dovecot (IMAP/POP3), Squid, PostgreSQL, inn, NewsCache, OpenLDAP, Samba, Dante/Socks, Subversion, Quagga, Bird, Netfilter/IPTables Firewall, ...
- Network planning and administration: Virtual Private Network configuration using OpenVPN and OpenSWAN (IPSec-based); excellent knowledge of IP and IP-based protocols, including TCP, DNS, HTTP, NNTP, RIP, SMTP, SNMP and IPv6.
- Open Source advocate familiar with many widely used Open Source licenses (and with a good understanding of the implications of using Open Source software in a commercial environment).
- Open Directory Editor for C++, CORBA, XPCOM and multi-threaded programming.

A hyperlinked version of this CV is also available at http://cv.cmeerw.org