

Mark Eggleston

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Profile

Over 28 years software engineering experience, including nearly 19 years C++ (including C++11) and 16 years Linux. Experienced in using a wide variety of computing environments from small embedded systems to large servers.

Skills

- OO design and development using C++ (STL, templates, boost etc.)
- Familiar with C and can adapt to other languages C#, Python, Ruby and Java
- Cross platform development Linux and Windows
- Multi-threading
- Multi-precision arithmetic (MPFR C++)
- Version control – Subversion, Git
- GUI development using Qt4, Qt5, Gtkmm (GTK+ C++ bindings), JavaFX 8
- Network communication (Sockets, TCP/IP)
- Package creation using GNU autotools and Caphyon's Advanced Installer (Windows)
- XML
- SQL Databases (PostgreSQL and MySQL) accessed via vendor libraries, ODBC and JDBC
- Integrated Development Environments, NetBeans, MS Visual Studio
- Building custom Linux kernels to exclude unused features and hardware

Career history

October 2005 to date

I have been working on personal projects to enhance my skills especially with regard to generating fractal pictures for my blog and for sale.

Since being made redundant by Porta Systems I have acquired skills in GUI development using GTK+, Qt, JavaFX for the development of an application personal projects:

- A book database application developed in many versions using different languages full versions in C++, C#, Python, Ruby, Java 8, Objective-C, Boo and a partial implementation in Ada 2005 (no GUI).
- Software for generating fractal images written in C++ with extensive use of multi-threading. multi-precision complex arithmetic, stl, boost and XML. Fractal parameters are embedded in PNG files. Pictures up to a maximum of around 700 megapixels can be generated. See <http://element90.wordpress.com> for more information.
- All software is under version control at first using Subversion but now using Git.

In addition I've evaluated OpenGL, OpenMP, OpenCL (Linux) and fixed the no sound problem when running Linux on an Aluminium iMac 24 sending the patch to the kernel maintainers.

June 1991 – October 2005 Senior Software Engineer.

Porta Systems Ltd. (formerly Vanderhoff Communications Ltd.) Rowley Drive, Coventry.

Porta developed systems for testing telephone lines.

General responsibilities:

- Specification, design, implementation, debugging and testing of subsystems of a system for testing telephone lines i.e. the full Software Development Life Cycle.
- Peer review of design, documentation and code produced by other team members.
- Software version and release control.
- Integration testing.
- Software maintenance.

Specific responsibilities as my role changed:

Jan 2005 to October 2005

- Development of xDSL Remote Test Unit using Linux/C++ using an x86 based SBC.

November 2002 to February 2004

- Development of the 'low-cost' Remote Test Unit using an x86 based SBC.
- Porting QNX base implementation to Linux.

June 2000 to October 2002 and March 2004 to October 2005

- Migration to Alpha/Tru64 Unix/Oracle (C progressively moving to C++).
- Porting the system to x86/Linux/Oracle for a reduced cost solution for customers.
- Evaluation of PostgreSQL as replacement for Oracle.

August 1997 to May 2000

- Migration of subsystems from PDP-11 to Windows NT (C++, ATL, SQL Server)

June 1991 to July 1997

- Implementation of software components using Pascal, and MACRO-11 assembler to run on PDP-11 using RSX-11M+ operating system.

December 1989 – April 1991 Software Engineer

Kelsoft Ltd., 48 Queens Rd, Coventry (no longer trading). Kelsoft developed cellular mobile radio communication systems using Modula-2.

November 1987 – November 1989

GEC Plessey Telecommunications Ltd., Ford St, Coventry (formerly GEC Telecommunications Ltd.). GEC, at Ford St, developed two types of PABX for the UK market. I worked on a PABX using SL-1 programming language and on an associated Auxiliary Data System (ADS) used to monitor automatic call distribution. PDP-11/RSX-11M+/Pascal.

September 1986 – June 1987 Programmer

Dillon Computing Ltd. Thornbury, Bristol.

The main activity of Dillon Computing was the development of fleet control software for the transport industry. Fortran, DEC VAX/VMS and Concurrent C/PM on 8086 PCs.

August 1984 – August 1985 Programmer (Sandwich year of degree course)

Plessey Defence Systems Ltd., Titchfield, Fareham, Hampshire

Plessey was developing real-time projects for the MOD and for other countries.

Education

BSc Hons. (CNAAB) in Computer Science, (2:2) Portsmouth Polytechnic (1982 – 1986)

3 'A' levels – Pure and Applied Maths, Physics and Chemistry

10 GCE 'O' levels and equivalents