

Robert A. J. Marshall

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Skills

I have been responsible for software and hardware installation and maintenance on a variety of environments including Linux and Windows. I have experience of managing developers and software products.

I have many years experience in software engineering with numerical analysis skills and I have used those skills to create efficient programs to provide mathematical solutions. Applications have included power system network simulation, process flow diagrams and hydraulic analysis. I have used a variety of languages (including C++, Python and Java) in program specification, development and testing. I have also designed interfaces between CAD formats, tools and databases.

I have a working knowledge of French, both written and spoken.

Computer Language Skills

Language	Operating System	Example Application
C++	Unix/Linux	Electricity grid network design
Visual-C++	Windows	User Interface design
Python	Linux/Windows	enhancement of power electronic tools
Java	Linux/Windows	Numerical analysis
Java	Linux	Automatic meter reading
Lisp	Linux/Windows	Emacs major mode design and software engineering support tools

Other Software Tools

Tool	Application Area
Postfix/Exim/Spamassassin	management of company email system
ssh/iptables	Safe management and use of LAN/WAN
Trac/Test Track	Enhancement/bug database, for scheduling tasks
svn, cvs, rcs	A variety of version control systems
SQLPlus/ODBC	CAD database and tool interfaces
WiX	Development of windows installers
XML	Used as an interchange format for graphic and design data

Experience and Achievements.

Jan 2010 - present, I have worked as a software consultant developing enhancements for the client's electricity modelling tool.

2007 - Dec 2009, TNEI Services Ltd, Manchester

- I have been involved in the maintenance and development of C++ software under Linux and Windows within the area of power systems simulation (IPSA+).
- I have used Python to automate and enhance the capabilities of TNEI's electricity network modelling tool for a variety of power utility companies.
- I have been involved in Linux systems administration and the management of the company email system (using exim4 and spamassassin).

2005 - 2007, I worked as a software consultant for a number of clients.

- I have administered, installed and maintained a variety of Linux distributions (RedHat and Debian based) set up mixed Linux/Windows networks and developed iptable knowledge in order to enforce safe practices
- I have developed Java applications under Linux that perform automatic meter reading using SOAP and store and access results in an Oracle database.

2000 - 2004, Senior Engineer, Shaw Power Technologies, Knutsford.

Production of electrical network simulation software for planning, designing, and analyzing distribution systems.

- Management of software design, testing and release, team management and interfacing with customers over helpdesk issues and future requirements.
- Responsible for integration of reliability engine within PSS/Adept.
- Software support and design.
- Responsible for the development, testing and release of PSS/VIPER.
- Implementation of the merging of two product lines combining the code bases efficiently.
- Management of site hardware and in charge of third party software installation and upgrading.

1993 - 2000, Senior CAD Engineer, Bechtel Water Technology, Warrington.

Freelance contractor and full-time employee working as a software engineer and numerical analyst.

- I built a numerical methods library for the analysis of hydraulic networks, modelling the network elements and solving the associated differential equations.

- I created a tool for the solution of mass-balance equations derived from the prototyping of process flow diagrams.
- I was also involved in developing links between a CAD package and Oracle.

1986 - 1993, Research Associate, Department of Computer Science, The University of Manchester.

Worked in Electronic CAD group on a number of projects involving hardware simulation and CAD language interworking.

1985, Senior Software Engineer, Marconi Secure Radio Systems, Kidsgrove, Staffordshire.

1978 - 1983, Voluntary work for a group helping to assist the unemployed. Wrote programs for various microcomputers (a database for schools work, and skill analysis programs). I also joined a community running a conference and counselling centre (Scargill House Ltd.) and was part of the staff helping to run the centre and plan the conferences.

1975 - 1978, Software Developer. CAP (Northern) Ltd., Alderley Edge, Cheshire.

Publications.

I have published and presented papers on my work at a number of international conferences, details are available if required.

Educational Qualifications

1983-1984 MSc in Computing, Bradford University

1971-1975 Trinity Hall, Cambridge B.A. (III) - Mathematics and Theology

Other Information

Date of Birth : 1st November 1951

Marital Status: Married, two adult children

References are available on request.

February 2010