

# CURRICULUM VITAE

Name:	David Richard <b>Cantrell</b>	E-mail:	<a href="mailto:david@cantrell.org.uk">david@cantrell.org.uk</a>
Phone:	+44 7979 866 975	Address:	Flat 2, 11 Beulah Road Thornton Heath, CR7 8JH

## Summary

I have significant experience of developing and maintaining networked applications (both Intranet and Internet) designing and implementing secure applications on Unix-based platforms, relational databases, programming using perl and SQL, and system integration and security. Much of this has been gained in the publishing, medical and ISP industries. I am used to working to tight deadlines, working as part of a multi-disciplinary team and working closely with customers.

## Relevant skills

<b>Perl</b>	28 yr	<b>Linux admin</b>	20 yr	<b>Javascript</b>	3 yr
<b>XML</b>	6 yr	<b>MySQL</b>	20 yr	<b>Secure software design</b>	15 yr
<b>RDBMS / perl</b>	24 yr	<b>Shell scripting</b>	20 yr	<b>Systems architect</b>	9 yr
<b>Apache admin</b>	7 yr	<b>Team leading</b>	9 yr	<b>Testing and QA</b>	24 yr
<b>git</b>	14 yr	<b>ISO 27001 security</b>	2 yr	<b>ISO 9000 / quality assurance</b>	7 yr

## Other technologies

I also have less experience, or significant experience a long time ago, of the following and understand the underlying concepts:

- Programming in C, Java, Rust, and Go
- Sysadmin on Net/Open/Free BSD, Solaris, and Windows NT
- Networks and routing (including BGP and Cisco IOS)
- Programming for CP/M (I've even done it for money. Bet you don't see that often!)
- ZFS
- Other version control systems (CVS, SVN)
- Mail server admin / SMTP / IMAP and DNS admin / BIND / DJBDNS
- Postgres, Oracle, Sybase and MS-SQL RDBMSes
- Telecoms

## Employment History

<b>Broadbean / Veritone</b>	Jan 2020 - present	Senior software engineer for a company that provides software services to recruitment consultants, working on both green-field projects and maintenance of older ones.
<b>UK2.net / The Hut Group</b>	Jan 2012 - Nov 2019	Senior software engineer designing and writing a service management application for an ISP, bringing together into one administrative interface numerous products – VPSes, dedicated servers, email, domains, etc. Concentrating on testability, maintainability, making the application easy to troubleshoot, and use of standard tools instead of home-built etc; also improving development processes, designing application for scalability and reliability, and mentoring junior developers.
<b>BBC</b>	Jun 2009 – Dec 2011	Senior software engineer working on the back-end of iPlayer, on data import from and providing highly-scalable ultra-reliable and responsive APIs for other BBC systems. As well as the public-facing iPlayer application, other clients included third party EPGs, Smart TVs, journalists, and teams working on the 2012 Olympics. Used mostly perl, MySQL, DBIx::Class and Linux, with the Scrum methodology in a team of a dozen.
<b>Outcome Technologies, part of BUPA</b>	Jun 2004 – May 2009	Senior software engineer in a team of programmers working on software for gathering / analysing data on the outcomes of medical interventions, and monitoring medical compliance. Mostly using perl, Class::DBI, DBIx::Class, MySQL and Linux, working to ISO 9000 quality management and ISO 27001 security standards. Some work on designing system architecture and sysadminning. Worked closely with project managers and others to ensure that project objectives were achievable within the allocated time and budget. Instituted processes for code review and wrote coding standards.
<b>Alaris Medical Systems</b>	Jul 2003 – Jun 2004	Programmer working on multilingualisation and localisation of corporate web site and product packaging, interfacing with SAP back-end, using perl and Unix. Developed and maintained document management solution for international marketing team and Quality and Regulatory group, using object-oriented perl. Working within framework of ISO 9000 and national medical regulatory agencies' requirements, including FDA. Advised hardware engineers on security, encryption and authentication.
<b>Inweb</b>	Mar 2003 – Jul 2003	Programmer working on telecoms billing systems using perl and MySQL on Linux and interfacing with Telsis telecoms switches. Maintaining and extending an existing code-base. Familiarity with OFTEL and ICSTIS regulations and relevant sections of ITU standards. Assisting with system and database admin tasks.
<b>Bibliotech</b>	Oct/Nov 2002	Systems Administrator for a company that ran a web-based email service for 100s of thousands of users. Made redundant after two weeks, along with most of the rest of the team, when they turned out to be not quite as financially viable as I had thought!
<b>BBC Internet Services</b>	Jun 2001 – Oct 2002	Project Manager / Pre-sales Technical Consultant in the part of the BBC responsible for maintaining the BBC's internet presence. We also did development work for larger projects and intranet apps. Exposure to Cisco routers and lots of Solaris, Oracle and perl. Involved in EBU standards committee for multimedia on the web.

<b>Kokua Communications</b>	Jan 2001 – May 2001	Security Consultant at the London HQ of a company providing broadband satellite internet solutions. Responsible for securing company systems and helping clients with their own security. This included testing and reviewing software developed in-house.
<b>Oven Digital</b>	1999 – 2000	Head of Technology in the UK office of a large web agency. Lead developer on several commissions; system integration for Sky Sports and launch website for Playstation 2. Involved in project lifecycle from initial pitch through to post-launch support. Part of the Security Services team, working on security policies, audits, secure design, and penetration testing.
<b>The Wirestation, World Markets Research Centre, EMAP Consumer Magazines</b>	1996 - 1999	Developer positions at these companies, working with Javascript, perl, Windows NT, and Solaris, on applications for internal use as well as clients like the NSPCC and BT Global. Responsible for the first version of FHM Online, for which I apologise to everyone with good taste.
<b>Network &amp; Data Integration, GEC Marconi Communications</b>	1992 - 1996	Trainee positions at these two companies, working on network and database projects for Lloyds of London underwriters, and on documentation, quality control and ISO 9000 compliance.

## Publications/talks

- London Perl Workshop 2012 at Westminster University
  - Unit Testing – why you need it, and how to do it
- London Perl Workshop 2008 at Westminster University:
  - Closures for fun and profit – an explanation of what closures are, how they work and how they’re useful with examples
- The Perl Review vol 4 no 1 (Winter 2007):
  - “CPANdeps: do you know your dependencies?” – a paper describing my web site <http://deps.cpan testers.org/>
- London Perl Workshop 2007 at Westminster University:
  - How to be a CPAN tester;
  - Using Devel::CheckOS to determine what OS your code is running on
- Contributed part of a chapter about rsnapshot to “Backup & Recovery”
  - pub: O’Reilly, ISBN 0-596-10246-1
- YAPC::Europe conference 2007 at Vienna University
  - news2mail: a bi-directional Usenet/Email gateway
- YAPC::Europe conference 2006:
  - rsnapshot: a remote filesystem backup utility based around perl and rsync

## Other Work

I maintain numerous modules on the CPAN, and have recently been focusing on modules to help other authors improve their code’s portability and quality. To this end I also contribute patches to other authors, as well as doing lots of testing as part of the CPAN-testers. I very occasionally contribute small patches to larger projects and have

contributed to the perl core (documentation, tests, and portability), Linux kernel (ne2000 driver, MIPS port), and Google's libphonenumber which runs on all Android phones.

I took over at the beginning of 2006 maintenance of 'rsnapshot', an open source backup tool used by a great many people around the world, with users as diverse as churches, media companies, medical providers, schools, casinos and the military. For Manning publishers I was a technical reviewer on several books including Damian Conway's "Object Oriented Perl", Andrew Johnson's "Elements of Programming with Perl", Dave Cross's "Data Munging with Perl", and Theo Petersen's "Web Development with Apache and Perl", and have also tech-reviewed a work on Mac OS X security for Addison-Wesley. During my first stint at the BBC, I was a member of the European Broadcasting Union's working group on Broadcasting Multimedia on the Web.

I sat for some years on the London and Croydon divisional committee for the National Deposit Friendly Society, a mutually owned insurer, until voting to abolish the divisional structure at the end of 2008. The divisional committees were a link through which members expressed their desires to the management that they hire and could call them to account if need be. Through this I gained an appreciation for finance and that a good actuary is worth his weight in gold (actuaries may disagree with this).

## **Languages**

As well as my mother tongue of English, I have some familiarity with Italian, French and German. I am also one of the few people now alive to have ever used Latin "in anger". Although my skills in these languages have become somewhat atrophied through lack of use, I pick them up again quickly whenever I have to use them. In the technical arena, I am fluent in shell scripting, perl, SQL, and several of the weirder electronic incantations, have done substantial Java and Javascript (both client-side and server-side) work in the distant past, a little modern Javascript, and some Rust, Go, C, and assembler.

## **Vaguely Relevant Hobbies**

I am a founder member of the London Perl Mongers, and organise occasional social events. I have had a major role in the annual Linuxbierwanderung, being one of those responsible for organising the 2000 and 2010 events and giving several tutorials or workshops, on subjects ranging from assembler programming to the game of Go – not to be confused with the programming language. And on the subject of Go, I was one of the organising team for the annual London Open Go Congresses from 2011 to 2014. The congress attracts over a hundred attendees from around the world.

As of 2019 I am a cricket umpire in the Surrey Championship, something where keeping a calm head under pressure and dealing politely but firmly with disagreement is vital.