

# JAMES COLEMAN

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## PROFILE

Senior software engineer with development experience covering all phases of software projects. Highly proficient in c, unix and scripting. Adept at tailoring or creating tools to assist with development environments. Good communication skills. Experience working with customers and both senior or junior colleagues. A flexible professional who can take on leadership or provide support and influence as required. Broad experience with implementation of complex projects.

## PROFESSIONAL RECORD

**CommProve Technologies, Dublin**

**aug 2005 – feb 2009**

### *Software/System Developer*

CommProve <http://www.commprove.com> are an Italian-owned company whose award-winning product Quantiqua is in use with several Mobile Telephone Operators. The product non-intrusively monitors GSM 2G, GPRS and 3G protocols in real time. Monitoring servers provide interfaces for a range of products: realtime network statistics/measurements analysis, service analysis, behaviour analysis. Huge volumes of data are processed in real-time on server.

**Development and System Test of Quantiqua server  
software – solaris servers**

**aug 2005 – feb 2009**

- Part of team responsible for developing and testing core Quantiqua server software. Receive multicast datastreams from optical probes, discover and decode protocols, process and correlate data streams, produce and store tickets/pdus.
- Development and integration/test of general system software and libraries, protocol decoders/correlators. C++, multithreaded servers, make.
- Investigated and solved bug reports and complex issues. Very large amount of data to be processed and high speed mean realtime processing is needed. Worked on optimizing system for speed, use of system memory and stability.
- Deployed full system in test networks and on customer sites.
- Targeted functional tests and long-term system stability tests. Pre-release testing.
- Worked on solaris system installation/upgrade and monitoring process/scripts.
- Worked on Zenoss monitoring system for monitoring full network of CommProve servers in a customer site.

**Development Tools/Configuration Management**

**2006 – feb 2009**

- Developer and Admin and User Support of development SCM and general tools.
- Latest Configuration Management/Process environment is based on subversion(source control system), and Trac (ticketing and issue tracking).
- Trac buildbot tests and mergebot support development work on svn branches.
- Responsible for final test and merge to trunk of main product (multi-site multi-product multi-platform)
- Provided other scripts, tools and libraries used in development. e.g. 64Bit gcc and mysql on solaris sparc/intel, linux and windows. Use of mdb, libumem on solaris.
- Setup and install of test and development machines.

**Doolin Technologies Dublin**

**aug 2003 – jul 2005**

***Software Developer***

Responsible for working independantly and with small teams rapidly developing and delivering products where product turn around and time-to-market were crucial.

**Retail environment products for Alphyra – Linux server and scripting**

**aug 2003 – jul 2005**

- Design, development and test of roaming mobile phone top-up service for [StarMap Alliance](#). Responsible for customer care interface and server components. Linux systems, database, perl/php, network services.
- Developed sms gateway and other services for TopUpClub mobile phone loyalty product. Created and managed development & test environment (OO perl modules, automated tests). Integrated system with transaction database/services.
- Wrote TopUpClub management intranet and systems tools. Worked with customer QA and Systems to roll-out to operational.
- Maintainence & new Development and Test of linux server and transaction protocol services. Transaction processing, error processing & reconciliation. Intranet and script/database interface for admin/customer/finance.
- Provided software with rapid feature development times to high standard of reliability for high volume availability & reliability critical environment.
- Development of retail server environment product. Transaction terminal software under Linux or Windows. Server interface, secure product up/download, storage and serving of offline transactions – c, perl, protocols, encryption.
- Development and test of transaction retail embedded terminal software (product sale, credit card & loyalty card). Much scripting to automate development tasks.

**Homemaker Dublin**

**oct 2002 - jul 2003**

Responsible for care & upbringing of Daire & Kate.

- Develop and support of In-Project Audit CMM checklist and Process support tools.
- Coded windows media integration tools for PictAural.
- Developed Palm handheld progs for fun.

***Senior technical engineer in Communications Infrastructure division.***

Responsible for being technically excellent and taking lead technical role on projects.

**Network Processor project - portable middleware  
development and integration**

**jun 2001 - sep 2002**

- Developed network processor application, OS and driver software.
- Made use of OO techniques to create highly portable code and proved concept by adding support for multiple OSs (VxWorks, OSE and Linux) and multiple hardware (simulator, Agere's Payload plus chipset, Intel's IXP425).
- Used extreme programming techniques with an excellent team to develop software quickly and efficiently with a high level of quality.
- Supported extreme programming methodologies with original & innovative scripted & coded tools for automating aspects of development & multi-platform tests.
- Installed and maintained windows/solaris/linux tools and web pages for project.
- Researched software and environment requirements and worked with mixed hardware/software team to produce detailed plan for use of Intel's IXP425 communications processor as a Residential Gateway.
- Developed & tested drivers & ported network stack & security sw for IPSEC comms using DES blocks implemented in FPGA on Altera's nios32 CPU platform.
- Wrote software & scripts for WinNT/solaris to implement development and test env.

**Philips MyrIAD residential media and networking chip**

**nov 2000 - jun 2001**

- Lead definition of plans for system verification and BSP/driver software development for Philips MyrIAD chip. Provided direction for customer for both system verification and software development for MyrIAD project.
- Designed and implemented original system test and software development environment based on verilog simulator and scripted tools. Enabled project to go to software development and system test at an early stage.
- Took a senior technical role on team responsible for definition and implementation of system tests followed with debug of verilog design with Silicon engineers. Provided test results & problem resolutions which were highly praised by customer.
- Provided direction and mentoring for team developing and testing driver software.
- Assisted customer with development & test of VxWorks BSP & port of BSP drivers.

***Grade 1 engineer in Telecommunications division.***

Responsible for working independently on all aspects of projects and leading certain tasks.

**S3 software and tools**

**ongoing 1995 - 2002**

- Installation, test and maintenance of external software tools. e.g. gcc and libraries for MIPS, ARM
- Develop and deploy/maintain company-wide scripts and tools. e.g. c test/dev tools, web front end tools. Quality System Management tool for document control & publishing, change tracking. Internal Project Audit tool.

**Lucent OMC-2000 (OMC = GSM Operations and Maintenance Center)**

**oct 1998 - sep 2000**

- Responsible for maintaining and enhancing Network Management Center (NMC) Interface component of OMC. The NMC was active on customer site (T-Mobil).
- Developed OMC software for HP/UX servers, OMC consists of different unix processes to manage communication between GSM Network Elements and OMC.
- Detailed testing using ksh/csh/bash scripting to control unix processes, sql scripting to manage database and tcl scripting built in to OMC processes.
- Implemented & tested tcp/ip and http client/server components for test and production software. (for alarm and fault monitoring)

**Lucent OC-192/WaveStar Optical Switch software**

**jan 1997 - oct 1998**

- Developed and delivered large and complex software product. Involved in full project lifecycle of requirements, design, implementation and test.
- Managed change in requirements proactively where difficulties arose.
- Coordinated work packages and defined interfaces between Irish/Dutch/UK/US teams.
- Developed and maintained project environment tools/scripts.

***Junior engineer in Telecommunications division.***

Training and taking over responsibility for engineering development and test on projects.

**S3 - Philips RBS900 GSM base station software**

**1994-1996**

- Gained valuable experience working on GSM base station software.
- Trained quickly and within short period competent with all aspects of project: host and target testing, investigation of problem reports, diagnosing and fixing problems, management of deliveries and reports to customer in Germany.
- Provided high customer satisfaction with quick response and high level of contact.
- Maintained the software to increasing levels of high reliability by increasing test coverage, enhancing test and delivery environment and automating tests.
- Delivered well planned and executed feature enhancements to project.
- Supported system and field test in Germany, worked with unfamiliar hardware & tools and traced difficult problems which were outside S3's area of hardware or software.
- Worked to increase high quality environment and assist with ISO9001 activities in S3.

**Analog Devices** Limerick

**1992 (Jan-Sep) 1993 (June-Sep)**

*Co-op placement.*

- Worked in applications department with engineers testing and experimenting with new devices to create reports and application notes for end users.
- Developed test PCBs, driver and test software, hardware measurements and performance reports, demonstration hardware and software for new devices.

## **QUALIFICATIONS**

University of Limerick, **B.Eng.** Computer Engineering First Class Honours, 1990-1994

## **TECHNICAL SKILLS**

**Programming:** perl c C++ Java make SQL html javascript BASIC assembly

**Scripting:** perl :) php python unix sh/bash/csh/ksh tcl expect BAT DCL elisp ...

**Platforms:** Solaris Linux Windows Cygwin HP/UX VAX/VMS

**Embedded OS:** VxWorks DEXE PalmOS, BSPs drivers stacks & application

## **OTHER INTERESTS**

windsurfing, sailing, hiking, kiting, cycling,

reading, open source software, science,

family & kids, gardening, cooking, diy, local politics,

music,

Languages (beginner): Irish, French, Dutch, Japanese

**References Available upon Request**