James Cameron's Resume

(as of July 2021)

Summary

Industry Experience:	39 years.
Current Positions:	Research Operations Technician, Anglo-Australian Telescope, Siding Spring Observatory, Research School of Astronomy and Astrophysics, Australian National University. Chief Technology Officer, OLPC Inc., Miami, USA (One Laptop per Child).
Academic Qualifications:	1991, Bachelor of Business, Charles Sturt University, Majoring in Computing and Management Information Systems. 2009, Certificate IV in Training and Assessment, NSW TAFE.
LinkedIn profile:	https://linkedin.com/in/james-cameron-aa392b13/
GitHub profile:	https://github.com/quozl

Availability

Interested in pro bono work, board placements, and short term contract tasks. Will jump ship at the right price. Contact quozl@laptop.org.

Current Role - From 2021

Supporting telescope operations by ensuring the telescopes and instruments system are ready for use as required by observers and providing technical support to visiting scientists.

Siding Spring Observatory supports research for The Australian National University's Research School of Astronomy and Astrophysics (RSAA), consortium members of the Anglo-Australian Telescope, and several national and international telescopes.

Current Role - From 2009

Responsible for product evaluation, learning environment software maintenance, laptop.org cloud services, strategic planning, production sustaining, drivers for new and second source components, operating system packaging, system firmware, system test software, manufacturing tests, managing testing, bug database management, and bug fix validation for low cost, low power laptops.

Designed, prototyped, and implemented the low cost ambient light sensor subsystem of the OLPC XO-1.75 and XO-4 laptops.

Implemented production line tests for the OLPC XO-4 infrared touchscreen.

Key Skills

James Cameron has wide experience in product management, software engineering, programming and electronics.

Detailed Skill List

- computer systems hardware engineering,

    - RF sensor networks, microcontroller programming, use of ARM, Microchip PIC and Atmel AVR architectures, breadboarding of prototype designs, low level device drivers, manufacturing tests, computer aided prototype testing, post construction documentation.
- software engineering,
    - requirements analysis, functional specification, top level design, detailed design, documentation reviews, rapid prototyping, user interface drafts, coding, revision and version control, unit testing, integration testing, performance testing, as-built documentation, user manuals, documentation management systems.
- software engineering languages and tools,
    - Z80, 8080, 8085 assembly, ANSI and POSIX C, C++, Sockets API (TCP/UDP), ANSI FORTH, Open Firmware, BASIC, FORTRAN, COBOL, X-Windows, OSF/Motif, VAX MACRO, PIC assembly, GTK, HTML, Bind (DNS), GNU emacs, PHP, Lua, Samba, Sendmail, Apache, awk, perl, perl CGI::, Debian packaging, procmail, grepmail, fetchmail & spamassassin, Python, Python GTK, and Pygame, diff, patch, git, darcs, & mercurial.
- software operating system environments,
    - UNIX, Linux (Debian, Ubuntu, Fedora, Raspberry Pi OS), macOS, OpenVMS (VAX/VMS), (but not Microsoft Windows).
- software maintenance,
    - problem report tracking, code structure analysis, problem reproduction, patch preparation,
- system analysis,
    - workflow analysis, data modelling, entity relationship diagrams, database design, translation from third normal form to implementation, backup methodologies.
- security auditing
    - cabling analysis, network packet tracing, response probing, log analysis, access pattern analysis.
- system configuration
    - operating system installation (Debian GNU/Linux, Red Hat Linux, HP Tru64 UNIX, OpenVMS), network configuration (IP, DNS & BIND, DHCP, PPTP, PPP) response or port probing, log analysis.
- project management,
    - project task scoping, estimation of time to code, programming team technical leading (provision of common code), motivation of unpaid volunteers on open source projects, dispute resolution, effective communication, to-do list management, accurate time tracking.
- software support,
    - problem write-up, knowledge base searches, escalation to engineering departments, customer calming, procedure design.
- intellectual property,
    - software license terms and conditions, procedures for prevention of infection, provenance record keeping.

Open Source Community Work

James Cameron has been active in the open source community:

- as contributor to Open Firmware, a Forth based system firmware environment,
- as contributor to Sugar, an early education desktop environment,
- as contributor to rural radio range testing of the One Laptop Per Child project,
- as maintainer of the PPTP projects for many years,
- as maintainer of the Netrek Vanilla Server project for many years,
- as contributor to many other open source projects.
- as originator of some minor open source packages.

See the involvement table for a list of projects. See http://quozl.netrek.org/ for more details on originated projects.

Local Community Work

- technical consultant to Tooraweenah Community Technology Centre (2000-2013),
- committee member of Orana Region Amateur Radio Club, maintaining internet services and radio repeaters,
- radio communications operator in the New South Wales Rural Fire Service (2001-2007),

Previous Jobs

From 1996

Remote remedial software engineer for HP Services, acting in the following areas:

- Open Source Technology Profession Leader, Asia Pacific,
- Software Security Response Team, Asia Pacific, (alone)
- Linux backline (level 2 support), Asia Pacific, (alone, then in team of three)
- Tru64 UNIX backline (level 2 support), Asia Pacific, (team of eight)
- OpenVMS team, Asia Pacific, (team of eight)

Supporting products:

- Linux distributions, such as Red Hat, SUSE, and Debian,
- HP Tru64 UNIX, [formerly Digital UNIX, then Compaq Tru64 UNIX],
- HP Firewall, [formerly AltaVista Firewall, Raptor Firewall]
- OpenVMS on VAX and Alpha,
- Development tools.

Provided local web-based tools for departmental use:

- Telephone Directory, [C, direct to HTTP]
- Call Queue Backlog, [C, indexed file back end, direct to HTTP]
- Incoming call notification via Internet Relay Chat, [C]
- Fax server, [Linux, apache, efax and CGI scripts]
- Departmental roster, [C, direct to HTTP]
- PABX call queue monitor, [C, serial port to UDP packets]
- Call Queue Gateway, [Apache, PHP, FreeTDS, connecting to MS SQL]
- Team documentation Wiki, [Moin package with PHP scripting]

From 1992

Software Engineer with Digital Equipment Corporation's Computer Special Systems Sydney Engineering group.

- Member of a team that developed a Speed Camera Image Processing System, [South Australian Police Department, C, Oracle/Rdb, DECnet, OpenVMS]
- Member of a team developing Network Router Management Software, [DEC WANrouter 90, C, embedded]
- Performed initial design and quote preparation for an automated toll collection system for the Sydney Harbour Bridge,
- Provided DECforms consulting to a Canberra based company,
- Implemented a tiny web server for use in connecting legacy applications to the world wide web, [C, HTTP, UNIX & OpenVMS]
- Constructed a labour and materials cost tracking system for use within CSS using OpenVMS, Rdb, DECforms, and the tiny web server, [C, Oracle/Rdb]
- Provided web server implementation consulting to the Australian Broadcasting Corporation, including network demonstrations and detailed design effort,
- Maintained the CSS departmental web server, proxy server, and web browsing tools, and;
- Implemented a Digital Firewall at a large media organisation.

From 1991

Digital Equipment Corporation, Information Systems.

Member of a two person team satisfying small systems integration requests (WORKBUSTERS), implemented a conference room booking system to co-ordinate the use of 55 conference and meeting rooms. [COBOL, DECforms, OpenVMS]

Provided maintenance and operational support for a suite of financial systems used by Digital. [COBOL, OpenVMS]

From 1990

Digital Equipment Corporation, Information Systems.

Member of a team that designed and implemented a dual currency financial transactions database that summarises accounting transactions from several source systems for further processing by other systems. [COBOL, Oracle/Rdb, OpenVMS]

Built an online telephone directory application optimised for rapid access via LAT connected terminals. [C, OpenVMS, decommissioned October 1999]

From 1988

Digital Equipment Corporation, Information Systems.

Member of a team maintaining financial and accounting systems in support of Digital's business. Constructed a Financial Common Reference Database to be used by future accounting systems. [COBOL, in-house language, OpenVMS]

From 1982 to 1987

Kilpatrick Green Pty. Ltd., Engineering.

Programmer and system manager with Kilpatrick Green Pty Ltd., an electrical engineering contracting firm. Responsible for system management of a VAX installation, developed a financial data entry system, a grain terminal management system and an engineering labour production control system. [FORTRAN, RATFOR, OpenVMS]

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