

Experience

- **Systems Administrator**
 - Administration of Linux and Unix systems, specifically Debian / Ubuntu
 - Maintenance and hosting of web applications with the Linux / Apache / Nginx / MySQL / PHP (LAMP) software stack
 - Operation of internet services – email (sendmail / postfix) and DNS (bind)
 - Automation of software deployment using Puppet, Ansible and Vagrant
- **Programmer and Software Engineer**
 - Enterprise application development with Python and Perl
 - Database backed website creation with Ruby on Rails and PHP
 - Scripting with bash and Python, including network programming with the Twisted framework
 - Embedded code development with C
 - Management of source code in CVS, Subversion and Git
 - Participated in SAFe Agile Program Increments

Skills

- **Design and operation of enterprise networks and communications infrastructure**
 - Design and deployed of standard and bespoke solutions including data centre construction and refurbishment, and large scale on and off campus cabling infrastructure (conduit, copper and fibre)
 - Administered and maintained campus scale networks, including changes to routing and switching and the troubleshooting of network issues
 - Worked with vendors and clients to deploy and install equipment (network/servers) quickly, correctly and methodically. This encompasses the establishment of procedures and documentation for works undertaken both directly or by others.
- **Project planning and co-ordination**
 - Led multiple simultaneous multiple projects through all phases from initiation to completion including management of meetings (acting as chair, minutes), co-ordination of documentation (drawings, specifications, correspondence, issue and risk registers), finances (budgets and procurement) and activity management (resources, timing) and stakeholders (staff, vendors, clients)
 - Provided technical articulation of project requirements through negotiation, consultation and liaison with stakeholders
 - Worked with colleagues, in project teams, to manage delivery of projects within the broader organisational context (including senior and executive management), and externally to suppliers, contractors, consultants, government, and industry.

Education

Bachelor of Computer and Mathematical Sciences
The University of Western Australia

Employment History

Infrastructure Engineer, SKA Signal and Data Transport Consortium

May 2016 – September 2019 (3+ years)

Jodrell Bank Centre for Astrophysics,
School of Physics and Astronomy, The University of Manchester

Role and Responsibilities

Undertook the development of the fibre infrastructure design for the transport of science and control data and signals associated with the Square Kilometre Array (SKA) radio telescopes to be located in Australia and South Africa.

Responsibilities

- Development of the fibre reticulation design for SKA1 LOW and MID telescopes, including co-ordination with other SKA teams responsible for other telescope elements
- Development of cost and performance models for the fibre reticulation network, including a detailed costing of the total fibre network implementation, inclusive of implementation costs, down to component level (BOQ)

Major activities

- Completion of major documentation deliverables
- Undertaking Systems Engineering to co-ordinate interconnecting components of larger design
- Participation in and successful completion of Critical Design Review
- Participation in Engineering and Consortium Face to Face Meetings in South Africa, Netherlands, United Kingdom and Australia

Senior Technical Officer – Communications Infrastructure

2005 – May 2016 (11 years)

Engineering Services, Campus Management, The University of Western Australia

Role and Responsibilities

Working closely with IT, network and facilities teams, undertake project based work involving interaction with many stakeholders to solve engineering problems and deliver network infrastructure solutions for building, infrastructure and communications projects.

Responsibilities

- Supervise the development of communications specifications for major building and significant projects including consultation with design architects, engineering consultants and IT stakeholders.
- Work within existing programs, projects and budget, the development of proposals and strategy for site communications infrastructure budget, growth, and programs.
- Co-ordinate of the procurement, design, installation and commissioning of network, infrastructure for projects

Major projects (separate project portfolio available)

- Campus Wide Single Mode Fibre Upgrade (Business Investment Programme)
- Major Construction Project - UWA Business School -
- Data Centre Refurbishments – Reid and Physics

Mark Tearle

Web Programmer and Systems Administrator

June 2001 - 2005 (4 years)

University Communications Services, The University of Western Australia

Role and Responsibilities

Worked to modernise and homogenise the web presence of the University.

- Expanded the University's core web site hosting infrastructure, both hardware and applications, integrating new systems into existing monitoring and backup infrastructure
- Conducted analyses of requirements leading to the design and implementation of application solutions that extended the University's web systems
- Extended the hosting platform and content management system to provide key capabilities for the organisation and to undertake software development with the Linux / Apache / MySQL / PHP platform, including the integration of information from key corporate applications through web services, and development of automated and ad-hoc reports
- Created and maintained appropriate technical and user documentation
- Provided 2nd Level technical and user support for both system and application specific queries, including on-call availability as required
- Worked as part of a larger team, acted as backup for systems and network staff.

Major projects

- Led the technical implementation of the University's Content Management System on a multiple machine web server farm implemented on a LAMP (Linux, Apache, MySQL, PHP) server farm under the squiz.net MySource Classic application.
- Developed a major application (UWA Events) to managed and publicise public activities occurring on the University campus using Python. (*see <http://events.uwa.edu.au/>*)
- Evaluated trouble ticketing systems and deployed the Perl based "OTRS Help Desk"

Programmer / Analyst

December 1999 - June 2001 (1 year 7 months)

University Communication Services, The University of Western Australia

Role and Responsibilities

Linux Systems Administrator undertaking a mix of programming, business analysis, systems administration, documentation and support tasks, primarily supporting staff and student email systems.

Major projects

- Designed and implemented a replacement Telephone Call Accounting and Billing System with a web- interface for the University using MySQL / Perl / Debian Linux system collecting data from an Ericsson MD110 PABX.
- Implemented a prototype web application to monitor and read embedded energy meters via the network around the UWA campus using Perl, rrdtool and Apache talking ModBUS protocol
- Worked with other team members to undertake a series of upgrades to the student email system, interfacing it with other enterprise systems, replacement of manual processes, creation of online activation system for University email accounts, associated web based services and administrative tools for staff.

Memberships and Interests

University Computer Club - Life Member

Internet Association of Australia - Professional Member

Choral Music, Bell ringing, Theatre, Open Source Software (linux.conf.au / Linux Australia), Vespa Motor Scooters, Travel