

Personal details

Name Alexis Huxley
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Key skills

- sysadmin, scripting (Python, Bash, Perl), C
- tool development, build management, software packaging
- Subversion, Jira, make
- quality documentation
- deep and broad Unix knowledge

Professional experience

Employer Max Planck Computing and Data Facility, Munich
Role Compute (*not Computer*) System administrator
Dates Jun 15 - present
Responsibilities

- installation, development, maintenance and support of Slurm- and SGE-based compute clusters
- further development of the opensource Grid Engine Software SGE (e.g. adding support for formula-based "load_formula" using lex and yacc)
- scripting (mostly Python)

Employer Terma GmbH, on site at ESO, Munich
Role System administrator
Dates Sep 09 - May 15
Responsibilities Maintaining ESO's data archive systems and operational systems, supporting its users, developing its operational infrastructure. Tasks include:

- monitoring (writing check and event handler scripts for Nagios and ad-hoc cron-based monitoring)
- development of automated operating system (OS) installation tools (mkkickstart)
- provision of next-generation QC processing computer and storage systems
- support to junior staff members (with emphasis on documentation, standardisation, version control, scripting)
- all the usual system administration tasks (installations, change requests, problem solving, liaising with users/managers/vendors/consultants, DNS/NFS/NIS management, etc.)

Employer DCS GmbH, on site at ESO, Munich
Role System administrator
Dates Feb 07 - Sep 09
Responsibilities Maintaining ESO's general IT systems, supporting its users, developing its infrastructure. Tasks included:

- analysis/design/implementation of site-wide IT infrastructure projects (Linux desktop and server roll-out, virtualisation, replicated Subversion services)
- Unix support for scientific projects (advice to developers using Unix environments regarding C programming, Unix tools, scripting)
- storage management (NetApp administration, data migrations, storage forecasting)
- release management and testing (SciSoft VI [1], MkKickStart)
- all the usual sysadmin tasks (installations, change requests, problem solving, liaising with users/managers/consultants, DNS/NFS/NIS management, etc)
- programming ("Manhattan2" real-time control system for VLTI project)

Employer Terma GmbH, on site at ESO, Munich
Role Unix projects engineer
Dates Oct 06 - Feb 07
Responsibilities Recruited to assist ESO with several IT projects for which skills were missing or manpower was unavailable. Tasks included:

- assistance with preparation of CMM to SVN migration
- C programming (“Manhattan2” real-time control system for VLTI project)
- end-to-end email system monitoring

Employer Siemens Business Services, Wien, Austria

Role System administrator

Dates Apr 06 - Oct 06

Responsibilities Tasks included:

- all the usual system administration tasks on customer Linux systems
- project work (e.g. replacement of department's unmaintainable HTML documentation with a wiki and transfer of content, introduction of Subversion repository on SAN storage)

Employer Terma GmbH, on site at ESO, Munich

Role System administrator

Dates Apr 05 - Apr 06

Responsibilities as Feb 07 - Sep 09

Employer ESO, Munich

Role System administrator and embedded systems programmer

Dates Apr 99 - Feb 05

Responsibilities Tasks included:

- development of various tools for developers (e.g. PECS, RtdScope, tacCompile)
- development real-time control software for VLTI (e.g. for M16, M10, image alignment, Variable Curvature Mirror mounted in delay line trains)
- development of functional test suite for VLTI (“vlticmtests”)
- first line Unix support to division software developers (division VLT, later TEC)
- developer support for C, Unix, shell and Perl programming
- management of ESO's VLT project base software on development systems (VxWorks, GNU tools, RTAP)

Non-professional experience

Project Subversion [2], Debian [3]

Details I have contributed patches, bug reports and assistance to new users on several large open source projects.

Project PAA [4]

Details I have developed a tool for freezing and auditing original and mirrored repositories in production environments.

Selected publications

Article Alexis Huxley, “Managing Software Repositories in Production Environments” [5]

Paper Bertrand Bauvir, Anders Wallander, Philippe Duhoux, Alexis Huxley and Robert Karban, “Designing a common real-time controller for VLT applications”, *Proceedings SPIE 5496, 155 (2004)*

Article Alexis Huxley, “Program and Package Development Cycles” [6]

Manual Alexis Huxley, Stefan Wehner, “RtdScope User Manual” [7]

IT skills

Languages

- Shell (expert, daily use for 30 years)
- Perl (expert, daily use for 20 years)
- C (expert, daily use for 13 years, ~300k lines of code, including 85k at ESO)
- SQL (intermediate, sporadic use, 20 years)
- Python (expert, weekly use, 7 years)

Operating systems

- Linux (expert, daily use for 25 years, primarily RedHat clones, Debian)
- Solaris/SunOS (expert, 25 years)
- HP-UX (expert, 12 years)

- General tools*
 - BSD derivatives (8 years)
 - Make (expert, > 20 years, regular use)
 - Subversion (expert, patch contributor, 11 years, regular use)
 - Jira (administrator, 1 year, regular use)
 - Microsoft Office Suite (>20 years, regular use)
- Hardware*
 - Dell PowerEdge series servers
 - Sun (X4100, ...) servers
 - HP 9000 series servers
 - NetApp filers
- Phases*
 - Fujitsu and Sun SANs
 - software requirement definition (2 years),
 - architectural design (15 years),
 - detailed development (20 years),
 - test, integration, and handover (10 years)
 - Support (10 years)
- Standards*
 - ITIL Foundation Certificate in IT Services Management

Education

- Degree* BSc applied maths (Hons) Warwick University
- Training* various Oracle SQL courses (SQL-Plus, SQL*Forms, SQL*Reporter, ...)
- Training* Lustre Filesystem (Sep 09)
- Training* Linux High Availability with Pacemaker (Oct 11)
- Training/Examination* ITIL v3 2011 Foundation (Oct 12)

Languages

- Fluent* English
- Intermediate* German (B1), Slovak (~B1)

References

Anders Wallander, ITER, anders.wallander@iter.org
 Søren Baumann, Terma GmbH, srb@terma.com

Links

- [1] <http://www.eso.org/sci/publications/messenger/archive/no.123-mar06/messenger-no123-69-69.pdf>
- [2] <http://svnbook.red-bean.com/en/1.5/svn-book.html#svn.preface.acks>
- [3] <http://tinyurl.com/ahuxley-debian-bug-reports>
- [4] <https://codeberg.org/alexishuxley/paa>
- [5] <https://codeberg.org/alexishuxley/paa/src/branch/master/doc/articles/managing-software-repositories-in-production-environments>
- [6] <https://codeberg.org/alexishuxley/bs/src/branch/master/doc/articles/program-and-debian-package-development-cycle>
- [7] <ftp://ftp.eso.org/ftp/vlt/vlt/pub/releases/VLT2009/vol-2a/VLT-MAN-ES0-17210-3525.pdf>

Notice period

4 weeks, from the beginning or middle of the month.