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Curriculum Vitae

Details

Nationality	New Zealand
Address	Inner West, Sydney
Phone	+61 0 415 154 330
Email	alan.milligan@last-bastion.net
LinkedIn	http://www.linkedin.com/in/milligana
Twitter/X	https://x.com/bastionlinux
Github	https://github.com/milligana
Website	• http://au.last-bastion.net • http://linux.last-bastion.net • https://intranet.last-bastion.net • http://intranet.last-bastion.net/alan/profile/cvitae
Qualifications	BCom/BSc University of Otago, NZ
Availability	Immediate
Preferred Locations	• Sydney/Australia • Remote/Anywhere
Preferred Roles	• Linux/Infrastructure Architect • Cloud Architect • Open Source/Solutions Architect • DevOps Architect • Principal Engineer

Achievements

- Accelerated software delivery by implementing end-to-end [CI/CD pipelines](#) and [DevOps](#) practices, cutting deployment time by over 70% in RHEL/VMware environments.
- Rolled out a unified Linux lifecycle toolchain—build, deploy, patch, upgrade for enterprise RPM platforms, eliminating manual handoffs and boosting operational efficiency.
- Launched and maintained *BastionLinux* `<http://linux.last-bastion.net>` — a hardened Linux distribution—across six major releases over 20 years, a supportable baseline for commercial consulting.
- Introduced an ARM-based consumer hardware line (Raspberry Pi family), opening new revenue streams in the IoT/embedded markets.
- Built and grew a monitoring and automation consultancy (Chef, Grafana, Jenkins) that delivered turnkey observability solutions to clients.
- Pioneered Australian AWS Marketplace listings for pre-configured images—expanding distribution channels and generating incremental cloud service revenue.
- Create agile project management with [ScrumOps](#) and email-driven [Taiga](#) integration, slashing issue turnaround time and increasing team productivity.
- Designed and deployed multi-cloud OpenStack infrastructures via configuration-as-code, reducing provisioning lead time from days to minutes.

- Massively improved workflow deploying [Airflow](#) pipelines between systems, orchestrating API calls, and with detailed instrumentation and logging.
- Enabled real-time business analytics by implementing [Superset](#) for on-demand reporting and interactive dashboards, enhancing data-driven decision-making.
- Successfully launched a secure corporate *Linux Desktop* <<http://docs.last-bastion.net/solutions/desktop.html>> equipped with comprehensive AI productivity tools, enhancing operational efficiency and empowering data-driven innovation.
- Guided the Australian Computer Society's FOSS Special Interest Group for 10 years, fostering a vibrant community and advancing open-source technology adoption and innovation.
- Leveraged over 20 years of experience in developing Python applications to drive advancements in web development, infrastructure, data science, and AI, significantly enhancing project outcomes and technological capabilities.

Skills

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Architecture

- Object Orientated Design (OOA/OOD, RUP)
- C/C++ Compilers and Linkers (Solaris, HP-UX, GNU, CLang, LLVM, gcc)
- Systems (Linux Kernel, Drivers)
- Distributed Computing (RMI, RPC, HTTP, Socket, CORBA, TIBCo)
- Change Management (CVS, SCCS, RCS, Subversion, Git, GitHub, GitLab, [Gerrit](#))
- Web Technologies (Apache, Zope, Plone, Django, Flask, Tomcat, JBoss, CGI, HTML, XML/XSL, LDAP, JSP)
- Enterprise Content Management Systems
- Applied Cryptography (OpenSSL, TLS, GnuPG, Step, Authorities)
- SQL Encapsulation (DBI, JDBC, SQLAlchemy, Alembic)

Programming

- C/C++
- Java
- Perl
- Python
- Ruby
- Go
- Shell Scripting

Databases

- SQL
- Sybase
- Oracle
- MySQL
- [PostgreSQL](#)
- ZODB
- [Cassandra](#)

DevOps

- [chef](#)
- [Puppet](#)
- [Ansible](#)
- [Terraform](#) [Terraformer](#)
- Network Ops [NetBox](#)
- GitOps [ArgoCD](#)
- [jenkins](#)
- DevSecOps [ScoutSuite](#)
- FinOps: [OpenCost](#)

Monitoring

- [Nagios](#)
- [Zabbix](#)
- [Zenoss](#)
- [Grafana](#)
- [Loki](#)

Data Science

- [Airflow](#) (ETL, pipelines, workflow)
- [Superset](#) (Business Intelligence, Charting, Reporting)
- [Jupyter](#) [SciPy](#) [Pandas](#)
- [LangFlow](#) [LangChain](#)

Operating Systems

- Solaris
- [Linux](#)
- HP-UX

Banking

- Fixed Income and Cash
- Repurchases
- Program Trading
- Electronic Banking
- Trading Systems
- Market Data distribution and usage

Engagements

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June 2022 - Present - Product Development – Last Bastion Network

- New [BastionLinux 36](#) release - updated, modernised, appealing, stack.
- Developed our [Red Hat Subscription Manager](#) entitlements integrated with BastionLinux Subscriptions/Channels creating a compelling reason to cloud-purchase products shipped on the distribution.
- New BastionLinux products into [Alibaba Cloud Marketplace](#) to increase market penetration.
- [AWS Cloud Marketplace](#) new products and updates to encourage purchases.
- New [Kanban project management](#) productivity platform and creator of [ScrumOps](#) methodology and tools to more widely promote it.
- New office server and [DCinaBox](#) SME brand to more cost effective run workloads off cloud.
- Wrote a lot of new [Sphinx-based documentation](#), using git flows to formally release, and allowing serverless hosting.
- Consolidation and retirement of a lot of technology debt to have a more effective and sustainable back office.

Nov 2021 – May 2022 - Lead SRE Developer – Macquarie Bank

- CentOS secure workstation developed, security sign-off, delivered to 200+ developers.
- Instrumental in creating 'Developer Champions' outreach/forum.
- Porting Central Unix Ansible for latest Red Hat Linux deployments across the Bank.
- Hashicorp/Vault for POC/migrating secrets/X509 across software landscape to improve security posture.

Jan 2020 - Oct 2021 - Lead Infrastructure Developer – Commonwealth Bank

- Set up greenfield Python shop.
- Set up enterprise CI/CD pipeline around Jenkins to achieve pipelines as code.
- Brought documentation into the code - ensuring always current, and publishing into Confluence - readily discoverable.

- Wrote loads of Ansible, integrated with Tower for easy deployment and governance.
- Brought Data Science (Jupyter, Pandas) to ETL processes and ad-hoc storage analytics.
- Delivered Risk/Patching/Storage/Recovery Attestation portal (Django) with one other developer.
- Delivered Airflow workflow management infrastructure for sophisticated workload management.
- Secure code warrior champion and security practices into code and coding practices.
- Qualys vulnerability scanning, resolution, patching cycle management, curation, building, deployment of patched software.
- Resourced six local and remote team members.

January 2018-June 2018: Senior Consultant – CMD Solutions

- Effective AWS consulting for client Nib.
- Deployed SuSE Linux SOE, orchestrated with Puppet, ensuring vendor support for the application.
- This was the first public cloud implementation for a medical 'System of Record' in Australia.

Oct 2016 – Apr 2017 - Microservices Engineering – Woolworths Loyalty Programme

- Performed application development on AWS using serverless tools - APIGateway, Lambda, DynamoDB, Cloudformation.
- Delivering applications driving a 49% increase in directly measurable incremental sales in December alone.
- Introduced leading open source testing, CI/CD applications to institute and mature release management practices.

Jun 2015 – Sept 2016 - Product Management - Enterprise Solutions into AWS/Marketplace

- Steward more infrastructure solutions through AWS Seller Operations into Marketplace.
- Engaging with IBM Bluemix/Softlayer and Microsoft Azure Marketplaces for product facilitation.
- Business development and marketing.

Nov 2014 - May 2015 - Proprietary Trading Software Vendor – DevOps Lead

- Introduced DevOps to formally manage server infrastructure.
- Set up RHEL7 SOE management platform, support and upgrade path from RHEL5.
- Jenkins CI/CD into operations with OpenStack best-practice tools and procedures as next step in development maturity.

Jul 2014 - Sept 2014 - Stakeholder Management SAAS Vendor

- Took .NET/MSSQL platform into AWS Cloud (and potentially Azure) for flexibility in cloud costs.
- Linux/Mono lift and shift of classical Microsoft toolchain/licensing saving money.
- Introduced Cross-platform DevOps/Agile into organisation (Jenkins/CI, Chef/WinRM/Powershell).
- Collaboration/mentoring/engagement with offshore development team.

Sept 2013 - Oct 2013 - Ipscape – Configuration Specialist

- Implement industry best practice into software code base.
- Created and set up AWS dev/test and other critical DevOps infrastructure.
- Created Chef infrastructure to stand up complex LAMP/Asterisk clustered telephony infrastructure.
- Delivered flexible XML/XSLT tools to allow wholesale clients to configure callcentre solutions.

Earlier Career

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Jan 2012 - Apr 2012 - Roads and Maritime Services - Access and Identity Architect

- Advised/piloted through three OS transitions (Ubuntu, SuSE, RHEL).
- Delivered Identity Management LDAP for myRTA portal (2.5M users) across dev/release/production silos.
- Introduced Chef, Zenoss, 389 Directory Server to organisation.
- Performed system integration with VMWare/Vsphere and ZenWorks - leading industry tools.

Aug 2010 - Mar 2011 - Singtel/Optus – Senior Internet Services Engineer

- Delivered SMS rate limiting suite for Campaign Marketing (Kannel, Web/Perl).
- Upgraded various ISP infrastructure components (Anti Virus, LDAP, Email).
- Piloted Zenoss, Splunk.

Jun 2006 - Dec 2006 - NAB – Infrastructure Solutions Designer

- Stewarded infrastructure deployment for Reuters eFX currency platform.
- Technology designer for Unix/Solaris end-of-life/sunseting programme (over 300 servers globally).
- Technology designer for shared services platform (Oracle, Sybase, Websphere).
- Delivered various components of Solaris/SOE.

Jan 2004 - Jun 2004 - Davies Collison Cave – Enterprise Content Management Consultant

- Architected and delivered new Plone-based ECM/CMS/intranet integrated with AD and other Microsoft systems.
- Migrated content and platform from Windows to Linux.
- Staff end user training, site administrator training, system administrator training.

- Linux, Python, Apache.

Jul 2000 - Feb 2002 - Novasoft Information Technology Solution Architect (Contract) London, United Kingdom

- Architected global head-end quotes system for Reuters.
- Team-lead six application developers.
- Unix/Solaris.
- C/C++/Java, Versant.
- Created materials and delivered internal training courses.
- Strategic technical advisory for other client projects.

Sept 1999 - Feb 2000 - Deutsche Bank, AG Designer/Architect (Contract), London, United Kingdom

- Program trading, order management, settlements.
- C/C++ Object-orientated Perl, SWIG, Java, XML.
- Architected and developed majority of order routing middleware.

Aug 1998 - Jun 1999 - HSBC Midland Infrastructure Architect (Contract), London, United Kingdom

- Murex/MxRates implementation for fixed income/GILTS desk.
- Build and release management tools expert.
- Teknekron, TIBCO/Rendezvous, Reuters/ETX market data.
- HP-UX, Perl, C/C++, Shell scripting.

Apr 1998 - Aug 1998 - Logica Systems Senior Developer (Contract), London, United Kingdom

- Perl migration suite for EMU in fixed income bond repurchases.
- Unix/Solaris.

Oct 1993 - Feb 1998 - National Bank Architect/Developer (Permanent), Wellington, New Zealand

- DirectLink PC banking back end development and architecture for retail/wholesale treasury settlements.
- Unix/Solaris.
- C/C++, Object-orientation, Client-Server, Sybase/SQL Rogue Wave.
- Rational Suite.
- AS400/COBOL – corporate bonds.

Jan 1992 - Sept 1993 - ANZ Banking Group Developer (Permanent), Wellington, New Zealand

- IBM/3090/MVS.

- CICS/COBOL/HOGAN.
- Large software development team.
- Business critical production support.



Introduction

I undertake architecture level and senior SRE, DevOps, and AI consulting having worked independently for global corporate giants and small and medium businesses alike, providing scalable infrastructure and bespoke solutions into physical, private and public cloud environments.

In the past I have been engaged in architecting, designing, and developing trading and middle office systems for retail and investment banks globally, leading into my passion for modern infrastructure, automation, instrumentation and observability. These days I'm also familiar with cloud architecture frameworks such as Well Architected Framework (WAF) on AWS. I have a burgeoning AI stack and deploying across my own back-office.

I am very active in application development with a strong interest in commercial open source where I'm active in presenting and mentoring in local developer orientated user group circles, and for many years was the convenor of the Open Source SIG for the Australian Computer Society in Sydney.

With my BastionLinuxTM brand, I have a large public portfolio of offerings taking a hybrid/multicloud approach across AWS, Azure, GCP, Alicloud, OCI, Digital Ocean, IBMCloud.

As the vendor of a Linux distribution, the breadth and depth of my skills is extensive. Should you wish to discover what [Well-Engineered](#) looks like for yourself, you are encouraged to check out or spin something up in [AWS](#) or [AliCloud](#).