

Felix Hanley

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Principal Software Engineer.

I have developed a broad range of skills and have designed & delivered numerous high quality software projects. My technical experience ranges from applied cryptography, bare-metal hosting, performance optimisation, and debugging critical paths. I am comfortable in a variety of languages, now predominantly in Go.

I have much experience in team leadership and training, being able to explain technical topics clearly. I enjoy the “craft” of software engineering and am interested in helping others get the same satisfaction.

My publicly available source code is available at <https://src.userspace.com.au> and maybe still at [GitHub/GitLab](#).

References available on request

Principal Software Engineer, **Tönnjes** (*October 2023 – present, Remote*)

A world leader in secure identification.

Currently the technical lead and architect for the core services, libraries and APIs for use in global manufacturing processes, a SaaS, and mobile applications.

- Implementing ISO/IEC 20248 and extensions for use in RFID and NFC data carriers (*Go, WASM*)
- Architecture and implementation of custom PKI and related services (*Go, X.509, ASN.1*)
- Strong focus on efficient, high performance services for use in global manufacturing
- Design and lead for SaaS development, custom network appliances, SDKs & libraries
- Infrastructure migrations, deployments and monitoring (*AWS, Terraform, OpenTelemetry*)
- Development of shared libraries to support device application development
- Acting engineering manager

Principal DevOps Engineer, **MYOB** (*April 2019 – October 2023, Melbourne*)

An Australian multi-national corporation that provides accounting software to small and medium businesses.

As a principal engineer I was across a number of areas as a technical lead, particularly in the observability space and DevOps services.

- Architecture and implementation of centralised event processing service (*Go, AWS, OpenTelemetry*)
- Development of a distributed tracing service (*Go, OpenTracing, Kubernetes, AWS*)
- Architecture and lead for centralised service catalogue (*TypeScript*)
- Mentoring and coaching across multiple teams
- Strong focus on system performance, reliability, and cost efficiency

Senior Software Developer, **Seer Security** (*July 2018 – April 2019, Melbourne*)

A small security business with products used by a number of government agencies.

I was the architect and lead for a social-network content extraction and classification engine, built to government specifications.

- Developed a distributed content extraction engine and plugin architecture (*Go, Python, PostgreSQL*)
- Developed content extraction logic for multiple platforms and APIs (*Javascript, Python*)
- Maintained extensive tests and CI integration using machine learning datasets (*Gitlab, Docker, AWS*)

Senior Software Engineer, **Freestyle Technology** (*June 2017 – July 2018, Melbourne*)

An IoT technology company providing hardware and software solutions to service providers and municipalities across SE Asia and Australasia.

As a senior engineer I was responsible for the design and architecture of a custom processing pipeline, ingesting a huge amount of data from large deployments of devices in multiple countries.

- Developed distributed network stream processing engines ingesting from millions of devices (*Go*)
- Designed and implemented numerous supporting APIs (*Python, Awk, Shell, Docker, AWS*)
- Designed, implemented and administered supporting services and infrastructure (*PostgreSQL, PL/pgSQL, InfluxDB, TimescaleDB*)
- Maintained excellent test coverage and CI services (*TAP, Jenkins, Groovy*)

Senior Software Engineer, [KL Data/ARKpX](#) (2015 – 2017, Remote)

A small team developing a cross-platform, encrypted storage solution much like ‘Dropbox’ but using client-side, PKI cryptography. Products in use by multiple government departments. Previously called ‘LockBox’.

As the lead developer on the core cryptographic library I implemented numerous primitives and reusable components to be used by multiple front-ends.

- Lead development of core cryptographic library, implementing PKCS primitives and Java key store (JKS) implementation (*Javascript*)
- Developed custom ASN.1 schemas for CMS (RFC 5952) communications (*ASN.1, X.509*)
- Created extensive cross-browser test suite and maintained CI (*Node, Bamboo CI, Selenium*)

Software Engineer, [Ayuda Hosting](#) (2010 – 2015, Melbourne & remote)

A traditional, “bare-metal” hosting and consulting company with a small team based in the Melbourne CBD.

As a senior engineer I was involved in all areas of network design & security, project planning & cost estimation, client programming and consulting.

- Managed large, redundant networks, firewalls and VMs (*Xen, Keepalived, IPTables, IPsec, PF*)
- Developed numerous client websites and applications (*PHP, Javascript, HTML/CSS*)
- Developed custom control panel and billing software (*PHP, SQL, Shell*)
- Developed in-house CMS software with a custom ORM and plugin system
- Implemented large configuration systems (*CFEngine, Puppet*)
- Administrated highly available and redundant server clusters (*Apache, Nagios, Postfix*)
- Brought many large projects to completion

Solution Architect, [UserSpace](#) (2006 – present, Melbourne, Asia & remote)

As a consultant I have worked closely with clients in Australia and South East Asia.

Most recently:

- Consulting for the ISO/IEC 20248 (DigSig) 2021 revision, particularly the applied cryptography components
- Design and development of DigSig solutions for Thailand government agencies (*Go, Javascript, WASM*)
- Design and development of custom machine learning pipelines for Thai language customers (*Go, Python*)
- Provisioning of BSD based hosting services including highly available databases and load balanced servers (*BSD, Ansible, HAProxy, Postgresql*)
- Providing free, privacy focused DNS services (*PowerDNS, TinyDNS, Python*)

Over the years:

- Developed custom hosting control panels (*Go, AngularJS, Ruby on Rails, Shell*)
- Developed and maintained custom support and monitoring software for clients (*Python, Shell*)
- Designed and built custom REST API for a number of SaaS clients (*Go, Sinatra*)
- Designed and built custom e-commerce integrations for international clients (*Magento, Spree, Ruby, SQL, PHP, XML*)

Web developer, [Sensory Networks](#) (2005 – 2006, Sydney)

Developed and maintained internal, cross-continent warehouse application (*PHP, HTML, CSS, Lua, MySQL, XSLT*)

Programmer/analyst, [Contract](#) (2002 – 2005, Outback Australia)

Custom solutions for mining contractors. Deployment of BSD VPNs, LDAP and email systems.

Programmer/DBA, [National Telecoms Group](#) (2001 – 2002, Sydney)

Development on a large CRM used by 300+ seat call centers (*VB, SalesLogix*)

Programmer/Sysadmin, [DefineIT/Macquaraine Health](#) (2000 – 2001, Sydney)

Hardware support and maintenance of C/C++ code.

Volunteering

- Radio presenter for community radio station
- Audio technician for multi-lingual translation office

Education

2001 Bachelor of Computer Science and Software Engineering, [The University of Sydney](#)

1994 Bachelor of Applied Science and Computer Technology, Swinburne University (*deferred*)