# Neil Millard
## DevOps / Operability Tech Lead

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## Executive Summary

DevOps professional of the year 2024. A Devops infrastructure technical lead and team leader with experience of On Prem physical and virtual servers and external cloud services AWS, GCP, Azure. An experienced tools programmer (PHP, Python, GoLang) providing solutions for Devops, infrastructure and public facing projects. Has team leader skills with teams of up to 6 staff and has been involved in IT for over 30 years.

Key Skills
Project management and Team Leader skills

- Dev Ops Server engineering/management
- Windows and Linux Admin
- Amazon Cloud Services API integration
- Speaking and training
- Clear documentation
- Deploy advanced database driven websites

- Relational: MySQL, MSsql, NoSQL: MongoDB

- Data Warehouse, Jupiter, ETL
- Backend API development with PHP, Go, Ruby, Python
- Source control – Git, SVN
- Docker, ECS
- Automated Deployment and server builds
- Unit Testing, CI/CD, Jenkins, Selenium
- Terraform, Cloudformation
- Dev tools. Vagrant, Ansible, Puppet

## Career highlights

- Won the DevOps Professional of the Year 2024 Award. Recognized for his technical expertise in leveraging infrastructure, CI/CD methodologies, and Python APIs to create efficient workflows throughout the software delivery process.

- Supported and enhanced the Build and Deploy capabilities of HM Revenue and Customs. Hosting Tax services including Covid-19 services. Enhancing Build and Deploy capability through design and deployment of tools (using Python and GoLang) to enable self-service configuration and deployment to the platform

- Designed, Developed and provided dev-ops tools integrated with AWS for high availability. Architecture design of application, automated infrastructure builds of Linux servers and API design for www.gasengineersoftware.co.uk.

- Automating a seamless database upgrade for HP vertica in AWS environment, utilising puppet, bash, Jenkins, and AWS command tools. The focus was on zero data loss and minimal downtime for large (8TB+) database running on HP Vertica Clusters. Included the upgrading of the OS (centos 6 to RHEL 7) the server software, database software, metadata, and scaling.

- Spoken at Puppet Camp London delivering a Beginners talk about Masterless Puppet and Immutable server builds. The talk covers Hieradata, Puppet Module structure and the preparation of a host for Puppet to successfully run.

**Career history**

**Aug 2024 – Mar 2025 (Contract) Equal Experts (HMRC DPS) – SAS Platform Engineer**

Interviewing potential members of the team.

Design and creation of DevOps tools for to enable automated releases for SAS Data analytics platform.

Pairing and knowledge sharing to create best practice guides for Testing and Deployment of software.

Creation and Maintenance of Gitlab pipelines.

POC for Kubenetes based SAS Viya. Assisting with creation of Ansible playbooks

**Sept 2019 – July 2024 (Contract) Equal Experts (HMRC MDTP) – Platform Engineer**

Interviewing potential members of the team.

Design and creation of DevOps tools for self-service API, integrating AWS services and custom tools with user frontends.

Design and Automated creation of Production environments in AWS. Inc AWS Lambda, ECS, Jenkins.

Creating automated AWS environments with Terraform. AMI management with Packer.

Pairing and knowledge sharing with junior team members.

Design and implementation of Jenkins and pipelines including integration with Gitlab and Artifactory.

Design and Deploy of Container self-service platform using AWS ECS.

Part of the Covid-19 service delivery team HMRC Digital Tax Platform

**Jan 2018 – Sept 2019 (Contract) Equal Experts (HMRC Manchester) – DevOps / Tech Lead**

Assisting Delivery Lead and Product Owner with Planning, Estimating and Resource.

Interviewing potential members of the team.

Design and Automated creation of Production environments in AWS.

Creating automated AWS environments with Terraform. Host configuration with Ansible.

Providing guidance on Cloud infrastructure best working practices and security.

Pairing and knowledge sharing with junior team members.

Security improvements involving SecOps, IAM roles and Hashicorp Vault.

Deploying High Availability designs for database and front-end services.

Design, deployment and maintenance of Sensu monitoring solution.


**Oct 2017 – Dec 2017 (Contract) Equal Experts – DevOps / Site Reliability**

DevOps automation, site reliability and pipeline deployment.

Installing and building Pivotal Cloud Foundation on AWS, Google, and local installations.

Setting out and engineering pipelines in Concourse CI and Jenkins.

Setup of JupyterHub and Datalake environments for Data Science with Python.


**Sept 2015 – Sept 2017 (Contract) Moneysupermarket Group – DevOps Engineer, Data Warehouse**

Dev Ops automation, cloud server and migration builds.

This role largely consists of writing puppet modules, bash scripting, enhancing in house tools written in Ruby and Jenkins pipeline jobs.

I have spoken at a couple of Puppet events about Masterless Puppet deployment and Immutable servers and provided training in house for the DevOps squad.

The last project involved the automation and DR recovery of mongodb clusters including contribution to the puppetlabs mongodb module.

A successfully delivered an automated pipeline to the Data Warehouse team, to upgrade HP Vertica and provided upgrade processes with no downtime or loss of data,

including rollback and cluster scaling. This involved custom AWS scripts in bash and Python.

Writing a web application from scratch using Sinatra, Thin and Ruby to provide a web UI and API to encrypt passwords in configuration environment files. This was deployed via docker and mesos.

I was required to provide regular updates to project managers and team members via stand ups, Kanban boards and instant messaging.

Documentation of Puppet modules including usage, hieradata, version control and changelogs.

I wrote the Vertica Cluster puppet module to build cluster nodes and was to survive failure of any node and recover with no intervention.

I created and updated several puppet modules, yaml configurations for rightscale and docker which are required in the daily rebuilds of all Linux environments.

I also assisted in cross training several staff to use puppet and peer reviewed code in the private repositories.

**Hobbies: -**

I enjoy scuba diving and flying helicopters (not at the same time). I enjoy creating programming and playing computer games, using Unity and Godot engines. I also read non-fiction (audible and podcasts too) with a view to increasing my skills, knowledge, and abilities.

Youtube https://www.youtube.com/channel/UCAaoh3jk1qtvD3ALPp48_8w

blog https://www.neilmillard.com/blog