

James Warren – WebOps Engineer

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Currently working as a web operations engineer for the Office of the Public Guardian (Ministry of Justice), I am an enthusiastic, personable, imaginative IT professional with many years experience in the sector and a genuine enjoyment of problem solving and improving automation. Looking to further expand my skill set and face new challenges, I have worked for many years in the Civil Service and it is important to me that my work offers a valuable service to the public and performs an actual social function.

Key Technologies: (the following are all relevant technologies that I have actively worked with and have a working knowledge of)

Infrastructure as Code: AWS, UKCloud, Azure, (Using mostly Terraform)
Provisioning: Windows and Linux (Using mostly Ansible)
CI pipelines: CircleCI, Github Actions, Jenkins (building and deploying PHP, .NET, Java, Python applications)
Programming: Python, PHP, Go, Powershell, Bash, Perl, Groovy, VB, C++
Containerisation: Docker (in production, using ECS Fargate and previously Docker swarm)
Messaging: Rabbitmq, Azure Service Bus, AWS SQS
Alerting: AWS Cloudwatch alerts, Icinga2, Pagerduty
Log centralisation: AWS Cloudwatch, ELK stack
Repository management: AWS ECR, Nexus
Databases: MS SQL Server, Postgres (including rds/aurora implementations), DynamoDB
Source Control: Github
Testing: Unit tests (pytest, phpunit), behaviour driven (behat with goutte and selenium drivers), load testing (locust), contract (pact)
Work Management and Documentation: Jira, Confluence

Employment History

Web Operations Engineer | Office of the Public Guardian | Dec 2019 - Present

Supported the maintenance, monitoring and infrastructure for a frontend deputy reporting application. Created alarms, cross account backups, image scanning, cross az elasticache, rightsizing of resources, replaced services, moved non alpine services to alpine containers for increased security, implemented scheduled environment teardown and supported our live assessment including timely security fixes off the back of penetration tests. Also learned PHP with the symfony framework to a reasonable level and played numerous more development based tickets in particular to assist the team with rewriting and parallelising our slow behat tests (managed an 8x speed increase overall and much better maintainability).

Setup centralised pact server and created shared resources for setting up contract testing, golang scripts for baseline security adherence, created aws config shared module.

Designed and created the infrastructure and deployment pipelines for three different integrations using ephemeral development environments and versioned gateways. These services connected up different parts of our estate using lambdas serving python accessed through AWS API Gateway. Used OpenAPI specs as source of truth to auto generate gateway and as mocks for our tests.

Setup the infrastructure and pipeline for a major migration project. Went back to my DBA roots and have been working in all areas on this project, using python (with pandas and SQLAlchemy) and SQL to transform and integrate data from a legacy system to our new case management system. As well as setting up how all the components in the project hang together and are automated, I have set up the API test framework and assisted with unit tests, fixtures, validation of data and counts, deletion of existing data, performance tuning, transforms, integration, diagramming of infrastructure, instructions and organising the runbook.

Senior DevOps | The Insolvency Service | 2016 - Dec 2019

Designed and created infrastructure in the cloud (UKCloud, Azure, AWS) for all our digital projects using Terraform, adhering to strong security principles at all levels.

Created detailed provisioning playbooks for Linux and Windows Servers using Ansible. Deployed and configured through code all prerequisite software for our web applications and served them securely, managing the appropriate white listing and role based security.

Built efficient and versatile jenkins pipelines using groovy (in shared libraries) that run unit and integration tests, build applications from a number of languages (python, .NET core, java) and deploy them either as stand alone services or in docker containers as part of a docker swarm.

Continuously improved our services and setup automation for all areas of our environments (database backups, kernel management, windows updates, certificate renewal, disk space management, notifications etc..)

Setup monitoring and alerting solutions for all our servers including bespoke modules for business specific issues.

Implemented docker and nuget repositories programmatically in Nexus with backend S3 storage to better manage our docker and .NET deployments.

Setup and designed secure VPN solution (Openvpn) for accessing all our non customer facing applications as well as our servers from offsite.

Ran training sessions for other members of staff from our application support team to bring them up to speed with how they can provide 1st and 2nd line support for all our digital applications.

Created documentation for our business processes, diagrams of our infrastructure and troubleshooting guides for known issues.

Led the prioritisation and distribution of work for a small devops team, focusing on business impact and adherence to our target operating model.

Senior DBA | The Insolvency Service | 2009 – 2014 (DBA) 2014 – 2016 (Senior DBA)

Created monitoring and automation solution through powershell, SQL agent jobs and stored procedures for increasing awareness of issues on our database servers.

Built anonymisation suites using a mixture of powershell and dataveil to take dozens of our production databases and allow them to be restored through test environments.

Migrated large parts of our old finance system into the new finance system by processing the data through a raft of transformation operations.

Wrote numerous SQL reports for finance and other stakeholders exported as files or using SSRS and deployed to our case management system.

Constructed a process for migrating millions of financial transactions between accounts, applying all the correct rules, interest payments and generating the correct fees.

Produced numerous reusable stored procedures to help our application support team be able to handle numerous data integrity tasks without directly running SQL on the databases.

Tuned our databases; identified poorly running stored procedures and rewrote them, created maintenance jobs for updating indexes, statistics and clearing down of relevant tables.

Reverse engineered many Agresso (financial accounting system) processes to allow us to provide detailed breakdowns of reports for external auditors.

Education

Aston University | Bsc | 2000 – 2004 | Computer Science & French Combined Honours

Burford School | A levels | 1998 – 2000 | Maths, Computer Science and French

Burford School | GCSEs | 1996 – 1998 | 11 GCSEs at grade C and above

Work related personal development and achievements

Secure Code Warrior (2022), INSSInspire Award (2019), Agile Development Training, DevOps Days (Berlin 2017 and Edinburgh 2018), ITIL foundation (certified), Devops Culture, Advanced SQL performance tuning, SQL Server 2008 MCTS, MCSA 70-461 SQL Server 2012, Postgres training, All the standard Civil Service online courses (RFI, GDPR)