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About Me

I am passionate and self driven to deliver solutions in automation and service reliability with DevOps methodology. With my experience of automation in Cloud Native environments and an ability to develop in multiple languages and a wide range of technologies I would be a valuable member of your team.

Certifications

Qualification	Expires
AWS Certified Developer Associate	November 2022

Work Experience

giffgaff - Automation Engineer January 2018 - Present

I was asked to join a new team that was being formed to further the business move to a CI/CD model. At first there was only an OpenShift Cluster on AWS with no services deployed and the business was still doing manual bi-weekly deployments into RackSpace. I helped the business achieve continuous deployments into more manageable **EKS** Clusters and developed the Assembly Lines to succeed in at least twice a day deployments of legacy applications in RackSpace.

I managed and maintained the OpenShift and **EKS** Clusters for the development, staging and production environments. This also involved supporting teams to debug issues with deployments and reliability.

I improved our deployment code by putting it into a pipeline library that could be loaded into **Jenkins**. This is unit tested to enable rapid local development. **Terraform** code were put into modules and used **TerraTest** for automated testing.

I migrated our **Jenkins** agents from On Demand Instances to Spot Instances. This involved building our agents with **Packer** to generate AMIs, writing **Terraform** code required to create the Spot Instances and building an Assembly Line that automated the deployment of these agents. This enabled scaling agents based on demand which reduced costs and the time jobs spent in the build queue. This also increased reliability of our agents and reduced the amount of build failures.

I built a **Jenkins** environment which can be configured and deployed all from code. To achieve this, Jenkins was installed into an AMI using **Packer** and **Ansible**. Then using **Terraform** it could be deployed onto an On Demand AWS Instance. To finalised the configuration of **Jenkins** the Configuration as Code plugin was used. This meant that I could rebuild **Jenkins** any time required with almost no manual intervention and little downtime.

To automate the process of deploying Micro Services into **Kubernetes** I built Assembly Lines that handled the building, testing and deployment of the service. Also the creation and changes of the desired infrastructure was automated as part of the deployment. I created a **Helm Chart** that is used by all the teams that would deploy a Micro Service and configure routes, HPA and also enable monitoring with **Prometheus** with optional sidecar when needed.

To further simplify the deployments, I developed a tool in **Go** that would take YAML files and then generate Jenkins DSL Assembly Lines from them. As most services were deployed in the same way, only a few options were required but additional options could be set which would enable additional steps to the Assembly Line. A team would check in a YAML file for their service into version control and **Jenkins** would automatically use the tool to generate the DSL scripts and set the Assembly Lines. This abstraction reduced the time it took to migrate teams from the OpenShift Clusters to the **EKS** Clusters due to the reduced work to set up the pipelines.

I trained and coached the development teams to help build infrastructure, automating the deployments of their applications and working with **Kubernetes**. I also work with the SRE team to help debug and fix issues in the **Kubernetes** Clusters and Assembly Lines.

giffgaff - Front End Developer

April 2015 - December 2017

As a Front End Developer I worked in an Agile environment and worked on multiple customer facing features developed in PHP using Zend Framework. When I joined the Platform team I also worked on improving our development environment and fixed many defects and security problems.

To meet PCI requirements, I was tasked to work with the Operations team to help them build new Front End servers. I had already gained experience with **Ansible** so I could assist the team by writing the scripts to configure the servers to run the customer facing applications.

I also used **Vagrant** to get local development environments to be like the Front End servers as much as possible.

To enable the Back End developers to test their integration with Adyen, I provided a tool that they could run in **Docker** that would generate a set of encrypted card details.

Think Finance/Elevate - PHP Developer

March 2014 - December 2014

Joined the Customer Experience team to work on multiple projects that required robust and well tested code. Integrated with multiple web services in PHP and utilised **PHP Unit** to enable automated testing of new code.

RoundPartner - Full Stack Developer / Founder

September 2012 - Present

As founder of the web start up, my roles included the design, development and maintenance of a bespoke CRM service. **Yii**, **Bootstrap** and **BackBone** were chosen as suitable frameworks for the Front End. Micro Services and **Lambdas** in **Go** are used to handle processes in the Back End. I integrated the service into multiple API's including **Stripe**, **Mailgun** and **AWS**. Static parts of the site are built in **Hugo** and utilise **Cloud Front** and **Lambda** making it fully **Serverless**.

All the infrastructure was built in **Terraform** and servers configured with **Ansible**. **Cypress** is used for automated testing. Using **Jenkins** to manage the orchestration of the service results in almost no need to manually log into the servers to make changes or debug issues.

Submission Technology - PHP Developer

June 2012 - July 2013

For the Web Marketing and Email Service Provider my tasks involved maintenance and development of multiple high traffic websites in **CodeIgniter**. I also automated the process of deploying code automatically from version control from a manual upload process.

GForces Web Management - PHP Developer

February 2010 - May 2012

A web marketing company for automotive dealer groups and manufacturers. My role in the Managed Service team involved implementing new functionality and fixing bugs on existing sites. Working on multiple sites allowed me to gain strong development and debugging skills in **PHP**, **JavaScript** and **JQuery**.

UKAEA JET - Trainee Programmer

July 2007 - June 2008

As part of my year in industry for my Degree I worked for the nuclear fusion research company in the monitoring and control systems department. My roles included developing and maintaining software in **Python** for monitoring as well as creating reporting tools to support scientists. I also automated the back up of a system used for monitoring critical radiation data.

Qualifications

Type	Qualification	Year
BSc (Hons) Degree	Computer Science with Year in Industry	2009
National Diploma	BTEC National Diploma for I.T. Practitioners (Computing - System Support)	2005

Education

University of Kent	Canterbury, Kent	2005 - 2009
Thanet College	Broadstairs, Kent	2003 - 2005

Other Interests

I enjoy listening to music and going to the theatre, as spending time in a creative environment inspires me to think outside the box when solving problems at work. I also like to keep active by playing golf, tennis, hiking and swimming. Reading is a big part of my life as I have a love for learning.

Referees

References Available Upon Request.