Architecture and Developing on HSBC’s Hybrid App-centric cloud environments;

lead architect and lead developer for **PowerShell, DSC**, modularised, codebase for extremely large windows server estate.

Leveraged PAAS technologies like **Pivotal Cloud Foundry** to deploy a multi hybrid environment leveraging a zero-trust model, using PCF’s elastic runtime for Load balancer, Routeing and cloud API functionality, Ops manager for the bosh director and GUI functionality, build packs with custom frameworks, also used lots of other fucntionailty like log search, diego, Redis and more.

Running a **Puppet Enterprise Master** Architecture and **Ansible** Desired configuration state to support thousands of nodes to keep them automatically configured, built and in a remediated state.  
Grouping like for like infrastructure via their role and profile by using custom and trusted facts to make sure the classes and modules apply in the correct order to keep the nodes compliant and in their desired state.

Automated deployments using AWS CLi/ Restful APIs/ **CloudFormation,** Migrated key systems from on-prem hosting to **Amazon Web Services,** Capacity planning, Bottleneck identification on auto-scaling website platform with a huge throughput. Monitoring via **CloudWatch. Manged access with** with directory service, IAM, Key management store and SSO.

Developing scripts for build, deployment, maintenance and related tasks using **Jenkins, Docker, Maven, Python and Bash**

Extended the functionality **of VMware vRealize Automation** by using its SDK, REST and SOAP API calls to produce complex YAML based Blueprints via **VMware vRealize Orchestrator** and the converged blue print designer. Using an anything as a service (XaaS) ethos to extend vRA functions through vRO to leverage systems like Ansible and Puppet

Used AWS CLi/ Restful APIs/ cloudformation to build to EC2 and EC2 containers, cloud watch to Auto scaling, ELBs , Lambda functions.

Used the various AWS offerings as well EBS glacier and s3. And Database provisioning as well RDS, noSQL, etc.

Define VPC and configure networking , security groups,  and given granular access for  with directory service, IAM, Key management store, SSO, Directory services

* wrote either Jenkins jobs and/or VMware vRealise orchestration work flows on the VMware vRealise Automation web portal used for build automation.
* Development of additional services to PCF (monitoring addons, reporting from cloud controller API, etc).
* Relying on the local file systems, making sure the app can scale out not up, if possible scale out via its own internally service, not just scaling adding an additional instance of the application.
* No manually intervention, nothing hardcoded not even the database connection for example.
* Used JIRA and Confluence to plan and document tasks under an agile frame work