HUANG SHILEI

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PROFILE

Work on cloud infrastructure, Cloud Native, and CICD. Prefer automation and finding solutions for issues, and many a little makes a mickle. I embrace open source. Chasing new technology and solution, virtualization, containerize, cloud, cloud-native. I think technology is without boundaries. My major is software engineering, and my career started in the Tech Ops team, focusing on operation automation, to gradually develop tools that serve the business. My personal career growth has also allowed me to use a wide range of technology stacks, so as to understand the entire life cycle of software products to a certain extent and have full advantages when cooperating with business departments in development and Ops.

- Implement best practices for infrastructure as code/CICD for Tencent Cloud and Amber Group
- Built/Optimized Cloud infrastructure management and applied cutting-edge open-source cloud-native technology for the SAP AI foundation team
- Developed automation tool managing game server backend of Blade & Soul for Garena.
- Developed IT Infrastructure service platform for NetEase Inc Blizzard Games Department.

GitHub https://github.com/evansastre/devops_best_practice

SKILLS

IaC:	Terraform, Terragrunt, Cloudformation, Pulumi, Boto3, cloud providers' API
Cloud:	AWS, TencentCloud, GCP, AZURE, AliCloud
	Gardener, Rancher
CI/CD:	Jenkins, GitLab, GitHub Action, monorepo, Helm, Argocd, Argo, Spinnaker
Cloud-native:	Docker, Kubernetes, Service Mesh, istio, KFserving, Knative, Kiali, cloud foundry, k3s, kaniko
Virtualization:	Vmware VShpere, Hyper-v, Citrix, Vagrant, VirtualBox
Provision:	Saltstack, Ansible
Development:	Python, Groovy, AutoIT, bash, C++, Qt
Monitor:	Prometheus, Dynatrace, Grafana, datadog, Zabbix, SolarWinds Orion
Security:	Vault, IAM, Security Policy, Sealed-secret, Firewall Rules, WhiteSource, Fortify, Sonarscan, Protecode
Linux:	File, Permissions, Shell, Troubleshooting, DHCP, DNS, SMTP, SNMP, HTTP, HTTPS, NTP, TFTP, FTP, Zimbra, Cobbler, Httpd, Nginx, Open VPN
Windows:	Active Directory, WDS, WSUS, SCCM
	Service, Registry, Group Policy, Bash, PowerShell
Network:	Cisco & Huawei Router, Switch, Cisco VPN, Palo alto Firewall, AC VLAN, Multicast, LLDP, LACP, STP, BGP
Soft skills:	Enthusiasm for automating everything. Analysis, Project Management, Communication.

EMPLOYMENT HISTORY

Sep 2022 – Present
Staff Software Engineer, DevOps – Amber Group, Singapore

Main Duties, Projects, and Achievements:

In charge of DevOps architecture design and implementation for the group. As an architect and hands-on explorer building or optimizing cloud infrastructure, Cloud native, CICD, monitoring systems, and all modern cloud base DevOps systems. Share DevOps knowledge and handle critical issues.

A. Build AWS cloud infrastructure with infrastructure as code tool and best practice in the industry. With Terragrunt, terraform, cloudformation, CDK. Migrating current cloud infrastructure from manual or script-based management to under control by terraform ecosystem. Build standard and demo for reference.
B. Build AWS security policy, SCP, IAM management, and integration with other products with code.
C. Build standard flow for CICD, introduce with helm template or library to create the pipeline. Optimize the performance of the CICD pipeline.
D. Write code to do automation if there is a need.
E. Support the development team migrating applications from legacy ec2 instances to containerized solution – EKS.

Dec 2021 – Aug 2022
Tencent Cloud K8S Engine SRE – Tencent Cloud, Singapore

Main Duties, Projects, and Achievements:
In charge of Tencent cloud Kubernetes Engine TKE &EKS. Participate in the provision of architecture solutions, operation and maintenance, and difficult problem positioning of the ultra-large-scale container platform and scheduling system.
A. Optimize CICD process
B. Security control, set up a series of service vault/kms inject secret to k8s and achieve automatic rotation
C. Practice and transform with infrastructure as code and gitops
D. Optimize/develop monitoring strategy and view, automated analysis of monitoring system metadata for decision making
E. Chaos Engineering

May 2019 – Dec 2021
Senior Cloud DevOps Specialist | Release Lead – SAP AI Foundation, Singapore

Main Duties, Projects, and Achievements:
Build cloud infrastructure, CICD, and k8s-based ecological machine learning platform.

A. Cloud infrastructure
● Infrastructure as code deploy/update immutable infrastructure on the public cloud provider, cloudfoudry and Kubernetes helm charts
● setup Argocd & Argo workflow
● setup daily/weekly cluster
B. CICD pipeline
● shared libraries
● dockerize integration test
● customize stages
● setup security stages
● practice monorepo
● setup release process for helm chart
C. Release
● Coordinate release process, coldfix, hotfix
● Handle cluster and pipeline issue
D. Cluster/pipeline/service issues support

Aug 2017 – May 2019
Senior Associate, System Engineer, Garena Online Private Limited (Sea Group), Singapore

Main Duties, Projects, and Achievements:
A. Server management, Linux and Windows, of game project—Blade & Soul, Point Blank. Deploy, configure, and maintain servers and other critical infrastructure like firewall/VPN/cloud to support the project.
B. Game service management, server/client patch, issue solve. Development for standard auto management of the entire process.
C. Security management, OS, and strategy level security.
D. PaaS/SaaS platform Tencent BlueKing project. Source code analysis, data flow analysis, architecture analysis, design disaster recovery plan, fast deployment.

Apr 2015 – Jul 2017
IT Infrastructure Engineer - Blizzard Games Operation, NetEase Inc, Hangzhou City

Main Duties, Projects, and Achievements:
   A.   Develop IT infrastructure service platform. This platform is still used by the whole company.
   B.   Linux, build and maintain services on: DHCP, DNS, Gateway, NTP, TFTP, FTP, Zimbra, Cobbler, Httpd, Nginx, Open VPN. Network equipment, access control, network-related services, VPN. Internal CDN build and management.
   C.   Windows System Administrator, Activity Directory management, map out policies for security and management.
   D.   IT infrastructure, including the data center construction and server, network, storage, and other core equipment management. Manage VSphere, VDI. To protect the security and stability of the application infrastructure of the IT infrastructure.
   E.   Network planning, construction, and IT security management. Find security policy vulnerabilities, simulate intranet attacks, and permission stealing, and reinforce security policies.
   F.   Deploy knowledge management platform, confluence & Jira, and write documents.
   G.   E-sports Event support.

Jan 2014 – Apr 2015 IT Engineer, Focused Photonics Inc, Hangzhou City

Jun 2012 – Jan 2014 IT and operation management, Singapore HUAKANG Medical Investment Group, Chengdu

OTHER PROJECT EXPERIENCE

May 2015 – Aug 2016 IT infrastructure service platform
Tool involved: AutoIT, python, java, bash, Active Directory

According to the actual work encountered in the various types of problems to explore the needs of the main solution the IT daily work in the high repeatability problems, complex process problems, off working hours strong need ask for support. CS structure, a complete graphical interface tool framework, backend rights management, with game client synchronization, network application support, system application support, desktop issues support holding, special permission to support and other major categories of tools. Achieving a high degree of automation in IT supports.

Finish the complete development cycle, and determine the framework to build, develop, and test for the company's internal deployment, server-side maintenance, and permission management. Achieving a high degree of automation in IT supports. Save more than 50% of the time and support the team's workload, with this platform tool instead of human support.
https://github.com/evansastre/ITTOOL

Feb 2016 – Jun 2016 Activity Directory group policy and architecture optimizing
Sort out organization structure, delete duplicates, simplify, and drawing strategy map. Strategy structure adjustment, optimize, adjust part of the strategy ways to implement. Repair the failure strategy. The promotion and implementation of the various affairs, communicate with the team members and test the adjustments.

Aug 2015 – Dec 2015 VSphere VDI Test
Test the possibility of full desktop virtualization in the office.

Jun 2016 – Oct 2016 Teamwork, knowledge management
Application Technology: Mindjet, centos, confluence, Jira
Build the infrastructure and implement applications, introduce practice to onboarding teammates to use them.

Jan 2016 – Jun 2017 E-sports events support
Network resource allocation, international line resource application, network reliable test, game desktop Security Enhancement, live media resources to confirm communication, system deployment, client deployment and debugging. Participate in onsite supporting. Develop network test tools to determine the stability of the live platform, game server, and data collection. Blizzard Game Related.

Mar 2017 – Jun 2017 Security Enhancement
1. Implementation and testing of virus prevention measures on server and network system.

2. Simulated intranet attacks, reinforcement security policy. Permission review. VPN security access tool developments.
3. Communicate with the anti-virus vendor to get introduction and training, test data encryption product.

Oct 2017 – Dec 2017 Security policy deployment
1.Transfer security group policy to command and registry, deploy to production server.
2.Anti-virus system deploy.
3.Palo Alto firewall rule audit, server firewall audit. Develop firewall rule monitoring tools.

Aug 2017 – Jun 2018 Game project automation management tool
Develop automation tool managing game server backend of Blade & Soul.
- server initialization and game service deployment, maintenance, consolidation
- server/client patch auto build, auto patching
- log collecting
- game service monitoring
- entire automation operation process

Aug 2018 – Dec 2018 BlueKing, Ops all in one system
- Source code analysis, Data flow analysis
- Architecture analysis
- Design disaster recovery plan
- Research on open source components
- Build scripts for fast deployment

Nov 2018 - Jan 2019 Optimize VSphere Cluster
- Setup terraform deploy configuration and deploy VMs on VSphere.
- Implement Esxi remotely and setup vsphere

July 2019 – June 2021 CICD
- Setup pipeline central shared library for projects
- Security compliance – security scan stages and base image manage
- Setup daily/weekly rotation cluster pipeline and cleanup

July 2019 – 2021 Infrastructure
- Base on project requirements adjust/improve infrastructure deployment via terraform/argocd on multiple cloud environment
- Manage cloud infrastructure, planform infrastructure

July 2019 – 2021 Release
- Release components and handle infra/pipeline aspect issues
- Coordinate with each team as a rotating release manager make product delivered

July 2019 – June 2021 Learning
- Exploring and sharing opensource tools to team

Highlight on skills
Experience in K8S
1. Integrate "helm install" stage driven by terraform into CICD pipeline.
2. Setup ArgoCD, best practice across infrastructure and security, dedicated to requirements from development team. Sealed-secret, kustomize, overlay, structure to manage.
Wrote script for onboarding argocd in new cluster and update/upgrade in existing cluster.
Release the helm chart for each component in each git repository, and integrate in argocd structure.
3. Optimize the helm chart for vary components's repositories so that templates and data are fully separated, optimize multi-level template directory structure, reduce definiation redundancy, migrate sensitive values to configuration centre or vault path.
4. Setup gardener, for managing multiple cloud provider's k8s clusters. Write template.
5. Setup vault in Kubernetes environment, make decision on storage type, expose service, DB credential rotation, aws credential rotation, set permission on k8s, inject secrets with annotation. Scripts for setup/update, configuration as code.
6. Base on the functional requirement, properly use podAntiAffinity and network related annotation optimize performance of cluster.
7. Chaos Engineering on k8s cluster.
8. Participate in develop/implement Kubernetes operator
9. Disaster recovery exploration, velero

10. Cooperation with product owner migrate service from legacy os level to k8s, containerized the service, the test, and adapt the CICD pipeline.

Experience in automation with Python
1. Developed desktop application with python+Qt.
2. Developed automation operation flow for game services maintenance with python+selenuim.
3. Developed automation scripts for operation server and network, python+paramiko+ansible.
4. Use python interactive with public cloud provider's API, e.g. boto3 for aws, Tencent cloud API, for infrastructure implementation for operation.
5. As a glue development program language to achieve automation purposes in CICD.

Experience in site reliability engineering, keeping production services online and available
1. load balancer
2. Redundancy, avoid single points of failure
3. autoscaling
4. Use Distributed Software Architectures and Containerization technology
5. Security, only granting necessary permission for particular service roles, zero trust practice
6. Consider use multi-Tenancy
7. Test Driven Development, always try to find problem before the code go production
8. Write clean code and handle the exception
9. Release small and release regularly
10. Chaos Engineering
11. disaster recovery
12. Make code easy to roll back, infrastructure as code
13. immutable infrastructure, apart your compute unit and data unit away

Education

Sep 2009 – Jun 2013 Chengdu University of Technology, Bachelor of Software Engineering

Licenses & certifications

- Tencent Cloud SysOps Professional Engineer (TCP)
- Certified Kubernetes Administrator (CKA)
- Kubernetes and Cloud Native Associate (KCNA)
- Linux Foundation Certified IT Associate (LFCA)

LANGUAGES

English   Fluent
Mandarin   Native speaker

EXPECT WORK

Focus on technology innovation and technological frontiers. Full of enthusiasm and challenges.
Effective communication, harmony, and friendship.

I hope to practice the most cutting-edge DevOps concept through my existing knowledge and experience. Push

infrastructure as code/gitops/CD construction to a new level. Build a more efficient and easy-to-use modern infrastructure for enterprises in the field of cloud and cloud-native. I am an engineer with strong hands-on ability. I help the architecture and design to be implemented and take into account efficiency and safety in the process.