Shawn Wang

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Career Objective

With a **Master of Information Technology by research** from RMIT University and **over 4 years** of experience in the IT industry, including **1.5 years** of software development experience in the real industry, and selected as **1 of 24** participants in the **Australian Computer Society Victoria Technology Talent Program**, I possess practical expertise in Web development and algorithms using Nodejs, Reactjs, .Net core, and Flask. Additionally, I have gained valuable experience as a **DevOps Engineer** on several large-scale commercial team projects, working with **agile methodologies** to deliver high-quality work. With excellent interpersonal skills and fluency in both English and Mandarin, I am eager to contribute my skills and knowledge to an innovative team.
I am currently seeking opportunities in the field of **DevOps/Cloud Engineering**.

Skills & Certificates

Expert Core Skills:

- **Docker**: docker-compose, build, run, exec, stop, images, volume, push, logs, inspect, rm
- **Terraform**: module, workspace, for_each, cidrsubnet, lookup, count, element, template, S3 state
- **AWS**: ECS, ECR, Lambda, API Gateway, EventBridge, VPC, NAT, RT, Internet Gateway, VPC Peering Connection, ALB, ASG, Route53 (DNS), CloudFront, S3, EC2, SG, IAM, KMS, SSO, SMS, SNS, CodeBuild, CodeDeploy, Dynamodb, Elastic Beanstalk, Amplify, AWS CloudWatch
- **Jenkins Server**: server built by docker, virtual machine and local machine, master and slave nodes
- **Jenkins pipeline**: Docker Agent, CloudBees AWS Cred, Azure Cred, Blue Ocean, Slack/Email Noti
- **Linux/Bash Code**: apt-get, systemctl, sed, awk, for-loop, if, find, grep, less, args, regrex, crontab
- **SCM(Source Code Management)**: Git(rebase, Merge, VScode based), Github, Bitbucket
- **Project Management**: Agile Methodology(JIRA), Notion(Docs), Kanban

Proficient Skills:

- Orchestration: Kubernetes(EKS, AKS), Helm(Nginx, Cert-manager, EFK)
- Azure: AAD, ACR, DNS, VM, VNet, NSG, Load Balancer, Azure SQL Database, Storage Account(Blob Containers), Azure Insights
- GCP: Google Compute Engine, Google Cloud Storage, Google Map API, Google Big Query
- CI/CD: GitHub Actions
- CM/Automation: Packer, Ansible, CloudFormation
- Programming language: Python3, Java(v11), C#, T-JavaScript, Groovy(For Jenkinsfile)
- Web Backend Framework (Flask, .Net Core(v3.1), Nodejs(v16))
- RDBMS (Azure SQL Database, PostgreSQL(T-SQL), SQL Server(T-SQL) 2019, MySQL8.0, SQLite)
- NoSql (AWS DynamoDB, MongoDB, GCP Datastore)
- OS: Ubuntu(20.04), PowerShell, Amazon Linux
- Monitoring/Logging: Prometheus, Grafana, Elasticsearch, Fluentd and Kibana
- Code Quality Testing: Snyk, Sonarqube, CodeQL(Github Actions)

Industry Experience

Oli TechFin — Mel, Australia
Software Engineer — Feb. 2022 - Feb. 2023

- Utilizing various AWS services to complete different stages of product development, including deploying the frontend and backend with **Route53** and **Amplify**, and developing other **AWS services such as SNS, SMS, and S3 with AWS SDKs**.Mr.Market Web Link
- Wrapping an additional layer for a finance News API to **save hundreds of dollars** per month with **API Gateway** and **EventBridge(Cron Job)** with **Lambda** for backend development.
- Improving the high availability of MT5(MetaTrader 5) servers, we maintained **main and alternative servers across cloud providers** including **AWS, GCP, and AliCloud**. We also monitored the system's running status using **AWS CloudWatch, SNS, and Grafana**.
- Building a **data streaming pipeline** for MT5 and implemented **historical data crawling** using **Python** to extract data from other competitors' MT5 and MT4(MetaTrader 4) platforms, which enriches our company's trading database to attract customers.
- Developing the **backend RESTful APIs** using Python, Flask, Flask-Smorest, and Flask-SQLAlchemy to create a platform that enables clients to post ads through their Google Ads accounts.

Freedom Lend — Mel, Australia
Software Engineer — Nov. 2021 - Feb. 2022

- Developing a web fill **automation tool** using **Selenium** combined with **.NET WPF**, which **automatically filled data** into web forms, reducing manual data entry time. The tool was highly flexible, customizable, and improving productivity and streamlining workflows.
- Utilizing SQL/T-SQL to generate reports for service departments by leveraging SQL Server Reporting Services (SSRS) on SQL Server as well as Postgresql databases. Insightful reports provided valuable information to our service departments, which helps to improve decision-making processes.

Project Experience

Organization: Companet Alliance — Jan. 2023 - Current
Product: Pet Lover with IaC, and Orchestration on AWS & Azure
DevOps Engineer
Objective: The goal is to create a comprehensive web portal(**Nodejs** & **Reactjs**) for Australian pet lovers to communicate experiences, share ideas and make friends. It also integrated **OpenAI's Chatgpt** to create a Q&A feature and generate images for users.
This project contains 5 full-stack developers, 2 DevOps engineers and 2 Business analysts.
Tools: Jenkins, Terraform, AWS Elastic Cloud Kubernetes, Azure Cloud Kubernetes, Helm, eksctl, Docker, Docker Compose, ECR, ACR, CloudFormation, IAM, SSO, OIDC Federation protocol, Bitbucket, JIRA, Grafana, Prometheus, AlertManagaer, KMS, CloudWatch, SNS, EFK(Elasticsearch, FluentD, Kibana)
Duties: Fostering a collaborative environment(**agile**), while also implementing **CI/CD pipelines, building Azure resources with Terraform, and ensuring high availability.**

- Deploying the PROD backend, **EKS(k8s) EC2** instances have been implemented to host backend services with a **Horizontal Pod Autoscaler (HPA), Namespace, Secret, Probe, Ingress**. Also, we use **AWS Load Balancer Controller**, which is associated with an **IAM OIDC provider and a service account**, to enable **context path** routing.
- Deploying **AKS(Cert manager, Nginx DNS)** with **ACR** as a backend **failover mechanism** ensures high availability. If an issue occurs in the AWS Australia region, we manually trigger a Route53 with Lambda to move the service to the Azure US region.
- Using **Prometheus** to collect **metrics** from **Kubernetes** and present results to **Grafana** to visualize these metrics. **EFK** is used to collect, process, analyze and visualize **logs** from different sources.

Outcome: Through the extensive and **in-depth use of containerization, orchestration, automated build tools, and agile management methods**, we were able to significantly accelerate the building, packaging, and deployment of our high-availability products. This approach helped to streamline our development processes, **improve efficiency**, **speed up development** and **enhance the quality** with each sprint. Web Link

Organization: Avanger Feb. 2023 - Current
Product: Gamera with CI/CD, and IaC on AWS
DevOps Engineer
Objective: The project utilizes **Java Spring Boot** & **Reactjs**, and is built using **Gradle** to create a comprehensive web portal, including an online forum with a community culture that features a news section, classified information, and discussion groups for finding similar interests and hobbies.
This project contains 8 full-stack developers, 4 DevOps engineers and 1 Business analyst.
Tools: Jenkins, Github Actions, Terraform, Packer, Ansible, Docker, Docker Compose, ECS, ECR, API gateway, Event bridge, Lambda, Private VPC, RT, Internet Gateway, NAT, CloudFront, Route53, S3, IAM, JIRA, KMS, CloudWatch, SMS, SNS, Snyk and Sonarqube
Duties: Facilitating faster development and deploy **Java Springboot** with **Docker and Gradle** in **AWS ECS private subnet**, **Jenkins master and slave** and **package security** check.

- Deploying the Prod env backend (**ECS fargate**) in a **private VPC subnet across different AZs** ensures that only the frontend Web load balancer has access to the backend structure and high availability.
- Utilizing **Packer** and **Ansible** to build **Jenkins master and slave nodes** AWS AMI, then building AWS resources with **Terraform** to release high concurrent stress, which allowed us to increase pipeline computing resources configurations, ultimately improving the **efficiency and reliability** of our CI/CD process.
- Implementing **Snyk** in Dev environment to scan NPM **package vulnerabilities** and **SonarQube** to ensure **code quality and detect other security-related issues**.

Outcome: Utilizing secure **automated build tools, automated testing tool, secure Cloud System Architecture and agile management methods** to accelerate high-availability product development while ensuring system security. Emphasis was placed on rigorous security testing to minimize potential risks. Web Link

Education

Performance Education Mel, Australia
Professional Year Mar. 2021 - Mar. 2022
Key Subjects: Australian Business Culture and Environment, Achieving Career Success, Australian Workplace Skills and Professional Business Communication

RMIT University (Distinction Achieved) Mel, Australia
Master of Information Technology (Research Stream) Jul. 2018 – Sept. 2020
Compared with a coursework degree, the research stream includes a three-credit project in the AI algorithm(**Machine Learning, Deep Learning and Reinforcement Learning**)-the related field with a higher quality thesis

Shanghai University of Engineering Science Shanghai, China
Aviation Engineering of Bacholar Sept. 2012 – Jul. 2016
Acquired the essential skills in the mechanism engineer with a solid mathematical foundation and principle of automatic control, including *VB Programming Design, Automatic Control Theory, Principles of Database, Linear Algebra, Probability Theory, and Single & Several-variable Calculus*

Reference

References available on request