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, 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. To better handle work challenges, I underwent a rigorous **DevOps Bootcamp program** at JR. Academy with a few commercial team projects. I have experience working with agile methodologies, delivering high-quality work, and possess excellent interpersonal skills. Fluent 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

& Technical Skills:

- Containerization: Docker, Docker Compose
- Orchestration: Amazon Elastic Container Service (Amazon ECS), Kubernetes(EKS, AKS), Helm
- AWS: ECS, EKS, 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
- · Azure: AAD, AKS, ACR, DNS, VM, VNet, NSG, Load Balancer, Azure SQL Database, Storage Account(Blob Containers)
- GCP: Google Compute Engine, Google Cloud Storage, Google Map API, Google Big Query
- SCM(Source Code Management): Git, Github, Bitbucket
- CI/CD: Jenkins, GitHub Pipeline, Travis CI
- CM/Automation: Terraform, Ansible, CloudFormation
- Programming language: Python3, Bash code, C#, T-JavaScript, Groovy(For Jenkinsfile)
- Web Backend Framework (Flask, .Net Core, .Nodejs)
- RDBMS (Azure SQL Database, PostgreSQL(T-SQL), SQL Server(T-SQL) 2019, MySQL8.0, SQLite)
- NoSql (AWS DynamoDB, MongoDB, GCP Datastore)
- Code Quality Testing: Snyk, Sonarqube, CodeQL(Github Actions)
- · Monitoring/Logging: AWS CloudWatch, Azure Insights, Prometheus, Grafana, ElasticSearch, FluentD, Kibana
- OS: Ubuntu(20.04), PowerShell, Amazon Linux, Mac Os, Windows(10) WSL
- · Project Management: Agile Methodology, JIRA

- Utilizing various AWS services to complete the different stages of product development. This included using Route53 and Amplify for frontend deployment, API Gateway and EventBridge with Lambda for backend development. Besides, I also wrapped an additional layer for a payment API to save hundreds of dollars for the company per month. Additionally, I utilized AWS SDKs for SNS, SMS, and S3. Mr.Market Web Link
- 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. This helped to enrich our company's trading database to attract customers.
- Developing the backend RESTful APIs using Python, Flask, Flask-Smorest, Flask-JWT-Extended, and Flask-SQLAlchemy to create a platform that enables clients to post advertisements easily through their Google Ads accounts.

Freedom LendMel, AustraliaSoftware EngineerNov. 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 and increase efficiency.

Project Experience

Organization: Companet Alliance

Jan. 2023 - Current

Experience 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 integrated **OpenAI's Chatgpt** to create a Q&A feature for users, which can answer a wide range of personalized questions.

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: As a DevOps Engineer, my responsibility is to foster a collaborative environment, while also implementing CI/CD pipelines, managing infrastructure as code, 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 & Reactis, 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, 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, and code quality testing, such as Snyk and Sonarqube

- 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 Ansible to build Jenkins master and slave nodes to release high concurrent stress, which allowed us to increase pipeline computing resources and automate Jenkins server 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

References available on request Reference