# Kenichi Shibata

## Lead Cloud Native Architect / Principal Engineer

## Work experience

#### **Cloud Solution Architect**

2019-12 - Present

Comparethemarket.com

Architected key areas of the cloud infrastructure.

Redesigned exisiting cloud systems following industry standards

- \* Monitoring for Metrics and Logging
- \* Deployment Pipeline
- \* Kubernetes Cluster
- \* Operating Model
- Technical Leadership with multiple teams consuming cloud services
- Consultancy for cloud technology and solution using risk based and reward based approach
- Built a cloud infrastructure roadmap and vision for the new generation tech strategy
- Became the SME for the Cloud Infrastructure on Architecture and C-Level
- Cooperated with all levels Architecture to set standards and architectural principles around URLs for SEO and Performance
- Helped security build the guidelines around security testing and building architecture to automate and set policies in the cloud
- SME for AWS Cloud
- Decreased cost of AWS Cloud by est 10 percent working with EDP Savings Plans RI and liasing with AWS Enterprise TAM
- Developed and championed enterprise grade PaaS defining solutions for the next generation tech strategy
- Developed Roadmap for Enterprise Grade Kubernetes as part of enterprise grade paas with focus on
- End to end observability
- Cost Optimization
- Smart Deployments
- Cluster as Cattle
- Load Testing
- Self service Platform via Portal and Documentation
- Internal Product via Innersourcing
- Built and designed network with third party partners via CDN, AWS VPC Peering, Privatelink
- PoC with third party data analytics provider with focus on security and network partition tolerance
- Led improvements within the RCA Process and coordinated with AWS Enterprise Team for Support and Billing discounts
- Supported BI and Analytics by building high level designs using Apache Airflow, Apache Kafka (Connect)

## **Application Platform Architect**

2019-01 - 2019-12

#### Comparethemarket.com

Evangelize DevOps Culture and Shift Left Security.

Trained and Mentored Platform and Cloud Engineers for AWS Kubernetes and Terraform.

Conducted an extensive review of existing platforms which became the basis of an 18 month long roadmap.

Coordinated with the rest of architecture community and helped fill in the gaps of the existing architecture practices.

Triaged and assesed vulnerabilities VM and container level.

Identified key risks and threats to the existing workflows.

Led integrating Dev and Platform workflows on a high level.

Conducted Kubernetes Workshops internally and encouraged paired knowledge sharing internally and with product teams.

Run multiple PoCs with Vendors and Open Source tools within Cloud Native Landscape.

Led inclusive ways of working with the Manager of the DevOps Team

Architected for DevOps Team, Detectorist (Observability) Team, DBA Team

Championed Documentation and Demo mindset approach to sharing knowledge through docusaurus portal.

Led the Platform Architecture with the Platform Steering Committee in making effective decision in a Cloud Native fashion.

Evangelized DevOps and Shift left security (DevSecOps) principles

Helped architect Data platform solutions on AWS

## **Software Engineer Infrastructure and Operations**

2018-01 - 2018-12

Conde Nast International (Vogue GQ, Wired)

Infrastructure role and Evangelizing DevOps culture

Wrote code in Infrastructure as Code(IaC) for all infrastructure operations involving AWS, Fastly, Kubernetes, Datadog, Pagerduty all using Terraform

Built relationship with engineering teams across all teams for both Vogue and GQ brands within multiple European and Asian Countries

Developed a platform built for the developers

Taught developers how to use to use the kubernetes orchestration and the developer platform evangelized documentation

Went to scouting and discovery trips in APAC and EMEA regions for deploying the platform and to negotiate requirements (engineering, commercial and editorial) across multiple Conde Nast Countries and Brands

Solved centralization problem with the team, Centralizing infrastructure and shared CMS platform using the multi tenanted approach of web development.

Built out the operational and support functions with the SRE team using pagerduty and datadog configuration written in terraform

Deployed Compass Project which allows Conde Nast Brands and Countries to be digital and efficiently centralized decreasing cost and improving customer advertisement taking the best practices of each market and reusing it centrally within Vogue International

Led the DNS migration to a central AWS Route53 and CDN Migration to FASTLY CDN using Varnish Configuration Language deployed using terraform provider

Took ownership of communication with individual markets CTOs and CIOs for engineering workstream with the technical lead of migrations team.

Built out multiple CICD Pipelines Using CircleCI templated for generalities within the markets and then added the uniqueness of each market deployment using CDN for reverse proxying, caching, redirection and SEO optimization

Deployed applications using Kubernetes and Helm Chart-ized applications in a Continuous Deployment style

Logging using FluentD ingested to a elasticsearch using Kibana as the dashboard using elastic cloud

Dockerize Applications and taught developers how to containerize their applications

Migrated apps from ECS to Kubernetes

Interviewing Candidates and their technical tests resulting in multiple hirings

#### **Senior Staff Devops**

2017-01 - 2017-12

Simplex Technology Inc

Senior Staff DevOps

Cloud Engineer

Python Developer

Successfully introduced Gitlab CE to dev workflow(CICD Pipelines, Source Codes, Pages) Managed, negotiated and implemented feedhandlers with Financial Data Brokers Developed APIs using Python for interfacing with Numerical Data with High Complexity NumPy and Pandas Introduced OpenLDAP as the best practice for authentication and authorization for internal development tools

Successfully Managed AWS Cloud automation tools like Packer, Terraform, Boto3, Worked with the team effectively and successfully completed PoCs for Japanese megabanks Mizuho, SMBC-Nikko,

Effectively implemented Infrastructure and Application layer automation tools using bash and python scripts Successfully implemented Golden AMI as best practice when launching new EC2 instances integrated with open Idap in AWS Developed Documentation infrastructure using static site generators Hugo and sphinx

Setup AWS to Data center connection using AWS Direct Connect and VPC Peering

Developed reusable internal python APIs for handling realtime and daily data

Primary maintainer of AWS infra introduced best practices

Successfully interviewed and hire senior infrastructure lead and members

### **Software Engineer and Technical Product Owner**

2015-08 - 2017-01

Fastly Retailing (Uniqlo and GU)

Architected Scaleable and Flexible Systems using MicroService Philosophy

Successfully rolled out Wishlist API (UNIQLO and GU)

Global Ecommerce Development Webapp, Rollout, Architecture and cross region distribution (UNIQLO)

Ecommerce project management and release engineering

Coordinated Cross functional communication within FR Infrastructure and Development team as one of the lead Architects

Developed Restful APIs using AWS services and NodeJS with Restify Framework

Created PoC Image processing using NodeJS (AWS Lambda) and then architected development team after for full blown development with Code Reviews and DevOps role

Worked with Graphql and React PoC and used it in production with development team

Managed CMS and Webapp both using reactjs as a base and integration using DevOps Philosophy with CICD Pipelines as best practice

Architected Infrastructure and Application end to end development of microservices. Started the shift to domain driven development with the lead architect

Wrote PoC Applications using ReactJS

Work with Infrastructure as a code (Terraform, DCOS, Mesos, Docker, Ansible) for setting up development environment

## Full stack web developer

2014-11 - 2015-05

McVill Cinematography

Full Stack Web Development

(PHP, Javascript, HTML5, CSS3, SQL) using LAMP/XAMPP Stack

including but not limited to Front End Web Development, Back End Web Development. Web deployment. Database Administration. Infrastructure Management. Web Maintenance.

## **Technical Consultant**

2014-06 - 2014-10

Typejump

Web Development and Technical Consulting.

#### **Kubernetes**

Built a production cluster for multiple teams using namespaces and resourcequotas for resource management.. Built the cluster with open source tools tectonic-installer and other tools from coreos. Debugged problems and deployed kubernetes upgrades. Evangelized kubernetes within the engineering team.

Architected Kops and Kubernetes in production. In a highly regulated industry

#### AWS / GCP

Setup multiple production AWS accounts with security in mind for Japanese Megabanks written only using Terraform

Deployed application using AWS SQS, AWS SNS, AWS ELB (ALB) and EC2 Instances (Spot Instances) in production all using AWS VPN and terraform

Deployed staging instances using cloudfront and AWS WAF

Used AWS Route53 extensively for DNS both private and public. Did DNS migration to route53

Used GCP for GKE and Cloud DNS

#### **Terraform**

Wrote Production ready code modules for Fastly, Datadog, AWS in Terraform and deployed multi region

## Fastly / Akamai / AWS CloudFront / Cloudflare

Wrote Configurations for Fastly and AWS Cloudfront. Deployed Fastly in Production using VCL to code for redirects, SEO Optimization, caching, and multi origin support. Deployed Akamai to prod in Uniqlo

#### Docker

Worked with Docker compose for dev environments

Worked with Docker swarm in production

Used docker as container runtime for kubernetes in production

Dockerized applications and sent it to quay, dockerhub and private image registry using CICD Pipelines

#### CICD

Built security first CICD Pipelines for Jenkins, CircleCI, Wercker, Travis, GitlabCI for Production

## Node JS

Developed Image Platform using AWS Lambda and NodeJS in Uniqlo, Deployed to production Wishlist and MySize Platforms in Uniqlo E-Commerce Site using Express/Restify. Documented NodeJS APIs using Swagger (OpenAPI)

#### Go Lang

Built PoC Command line functions as Kubernetes Helpers.

#### Kubectl-switch and Goland HTTP test

Python

Wrote Reusable Libraries within FinTech to process complex data using NumPy, Pandas. Wrote feedhandlers from third party data provider like Totan and Bloomberg interfacing with internal database.

**Bash and Makefile** 

Used Bash as primary server side scripting tool and Makefile for deployment of applications and infrastructure

## **Publications**

#### Medium

https://medium.com/@kenichishibata/akamai-and-the-hidden-cost-of-full-managed-cdns-42719d134b24

https://medium.com/faun/using-vscode-as-git-mergetool-and-difftool-2e241123abe7

https://medium.com/faun/git-submodule-cheatsheet-29a3bfe443c3

https://medium.com/faun/git-push-and-pull-tips-and-tricks-7f9163539f02

https://medium.com/faun/create-a-private-local-docker-registry-5c79ce912620

https://medium.com/faun/standardising-deployment-patterns-using-helm-chart-2c2b7a592b19

https://medium.com/faun/automatically-setup-gke-kubeconfig-ca272d68b0fd

https://medium.com/faun/quick-guide-for-kubectl-tools-and-plugins-afe7430ca50a

https://medium.com/faun/kubectl-commands-cheatsheet-43ce8f13adfb

https://medium.com/faun/introduction-to-helm-2-2a6eb08a42bf

