JIMMY RAY

SKILLS

Cloud Architecture

Migration · PCI DSS · High Availability · Resiliency · Compliance and Governance

Infrastructure-as-Code

CloudFormation · Terraform · AWS CDK

Security and Access Management

IAM · JWT · RBAC · ABAC · PARC · OIDC · TLS · Amazon Verified Permissions

Containers/DevOps

Docker · Kubernetes · Amazon EKS/Fargate · GCP Cloud Run · AWS CDK · AWS SDK · GitOps · ArgoCD · CDK8s · Jenkins · Helm

Policy-as-Code

Open Policy Agent · OPA/Gatekeeper · Kyverno · MagTape · k-rail · Cloud Custodian · KubeWarden · jsPolicy · Datree

Languages/Script/Shells

Go · Rego · Java · JavaScript · Groovy · Bash · Python

TALKS

GitHub Profile - Talks

https://github.com/jimmyraywv/jimmyraywv/blob/main/TALKS.md

PUBLICATIONS

GitHub Profile - Pubs

https://github.com/jimmyraywv/jimmyraywv/blob/main/PUBS.md

OPEN SOURCE

aws-samples/k8s-notary-admission

aws-samples/k8s-psa-pss-testing

deislabs/ratify (maintainer)

@ jimmyraywv@gmail.com   🔗 https://jimmyray.io/

EXPERIENCE

Chief Cybersecurity Architect
Boeing Global Services, Digital Aviation Solutions

11/2023 - Present
Powhatan, VA

- Decreased compute vulnerabilities by 80% using cloud best practices
- Defined Policy-as-Code Defense-in-Depth strategy for software supply chain
- Built Security Guardians team to increase security posture across product portfolios
- Led Architects Guild
- Led efforts to gain enterprise standardization for Cloud Custodian Policy-as-Code tool
- Led efforts to identify, PoC, procure cybersecurity tools
- Led FinOps efforts for AWS cloud tenancy
- Led Security Council for collaboration between senior and leadership and enterprise security

Chief Cloud Architect
Boeing Global Services, Digital Aviation Solutions

06/2023 - 11/2023
Powhatan , VA

- Led adoption of cloud Defense-in-Depth strategy
- Provided cloud architecture guidance across multiple product portfolios

Sr. Developer Advocate, AWS Kubernetes
Amazon Web Services

01/2022 - 06/2023
Powhatan, VA

- Delivered container image signing solution
- Led security module for EKS Workshop v2 release
- Led Pod security content for EKS Security Immersion
- Prototyped solutions for internal and external stakeholders, using Golang, Java, Python, and the container and Kubernetes ecosystem
- Produced and delivered technical content (blogs, docs, videos)
- Led container image signing efforts for AWS Kubernetes group
- Member of internal Software Supply Chain Security Steering Committee
- Policy-as-Code (PaC) and Cybersecurity/IAM SME

Sr. Specialist Solutions Architect, Containers
Amazon Web Services

09/2020 - 01/2022
Powhatan, VA

- Helped customers build secure container solutions
- Community thought leader for Policy-as-Code (PaC) solutions
- Subject-matter expert in Container Supply Chain and Container Security

Sr. DevOps Architect
Amazon Web Services

06/2020 - 09/2020
Powhatan, VA

- Engaged in DevOps consulting activities
- Delivered self-service least-privileged Service Catalog architecture

Distinguished Engineer
Capital One

07/2019 - 06/2020
Richmond, VA

- Led technical efforts of four teams building enterprise Kubernetes platform
- Containerization SME, responsible for enterprise vision and strategy
- Represented Capital One in the Cloud Native Computing Foundation (CNCF) Financial Services Users Group
- Venture Investment Technology Advisor
- Developed Policy-as-Code and security architectures

Cloud Engineering Containerization Lead
Capital One

03/2018 - 07/2019
Richmond, VA

- Led successful Kubernetes "Inner-Sourcing" effort, resulting in 120 forks, and adoption across the enterprise
- Architected and developed Kubernetes workload security and compliance layer with Open Policy Agent
- Contributed "voice-of-customer" to OPA/Gatekeeper OSS project
- Developed container workshop to boost container adoption
- Developed template-driven Golang command-line interfaces

CERTIFICATIONS

Can be seen here:

/https://www.linkedin.com/in/iamjimmyray/details/certifications/

VOLUNTEERING

Coding Instructor

Capital One Coders

http://coders.capitalone.com/

Technical Industry Advisor

Career & Technical Education Advisory Council

Powhatan Public Schools

EDUCATION

M.S. Management of IT

University of Virginia

B.S. CIS

Strayer University

MILITARY

United States Army

Combat Veteran
Blackhawk Helicopter Crew-Chief and Gunner
Awarded Air Medal and Congressional Veteran Commendation

EXPERIENCE

Cloud Solutions Architect
09/2016 - 03/2018

Capital One — Richmond, VA

- Led cloud migration for large line-of-business
- Developed compute guidelines that reduced cloud compute footprints and overall compute costs by 31%
- Developed secure containerization strategy
- Developed CICD server architecture for large line-of-business
- Developed compute and compliance strategies for Kubernetes migration
- Built AWS compliance tools with AWS SDK for Java and Cloud Custodian
- SME and instructor on award-winning (Circle of Excellence) SEED (Software Engineering Education Development) program

DevOps and Cloud Architect
03/2016 - 09/2016

nextSource at Capital One — Richmond, VA

- Increased security posture by developing security policies with Cloud Custodian and IAM
- Authored Jenkins Java plugin for HashiCorp Consul
- Built Groovy tools for Jenkins and AWS reporting

Director/Cloud Architect
05/2014 - 02/2016

AuthX Consulting — Richmond, VA

(startup)
- Architected IAM models for secure client accounts and services
- Reduced client costs by 27% via managed cloud solutions
- Reduced integration time by 32% by implementing DevOps solutions
- Architected Java RESTful API solutions and patterns

Solutions Architect
11/2013 - 05/2014

CloudBees — Richmond, VA

(startup)
- Increased brand visibility by speaking at OpenStack 2014 on Cloud-Bursting into RackSpace with Jenkins and JClouds
- Increased knowledge and effectiveness of sales team by mentoring, and sharing product knowledge
- Served as SME for Cloud, Containers, Java, Jenkins, and DevOps

Solutions Architect
06/2011 - 11/2013

ICF Ironworks — Richmond, VA

- Introduced Cloud architecture to decrease delivery times by 23%
- Delivered JEE/Spring Veteran Relationship Management Web Self-Service projects
- Introduced Behavioral Driven Development (BDD)
- Took over architectural lead of failing project and delivered 1.0, 1.1, and 1.2 product increments
- Developed target NoSQL data architecture with Spring Data and MongoDB

See LinkedIn Profile
1997 - 2011

Various — Various

LinkedIn Profile
- https://www.linkedin.com/in/iamjimmyray/details/experience/

RECENT PROJECTS

Policy-as-Code - book for O'Reilly

https://learning.oreilly.com/library/view/policy-as-code/9781098139179/
Currently writing - due out 07/2024

Kubernetes Dynamic Admission for Image Signature Verification

Go-based controller that uses Notary v2

Kubernetes Pod Security Testing

https://github.com/aws-samples/k8s-psa-pss-testing
- Wrote testing scenarios for Amazon EKS 1.23 release

Open Policy Agent Bundle Server

https://github.com/jimmyraywv/opa-golang-bundle-server

RECENT PROJECTS

Ratify - verification of reference artifacts

https://github.com/deislabs/ratify
- Wrote AWS ECR basic auth provider and AWS custom endpoint resolver

Kubernetes Workload Identity with AWS SDK for Go v2

https://github.com/jimmyraywv/aws-sdk-go-v2-irsa-ecr

Boto3 with Jupyter Notebook

https://github.com/jimmyraywv/jupyter

AWS CDK for EKS with Go

https://github.com/jimmyraywv/aws-cdk-eks-go

AWS CDK for EKS with Java

https://github.com/jimmyraywv/aws-cdk-eks