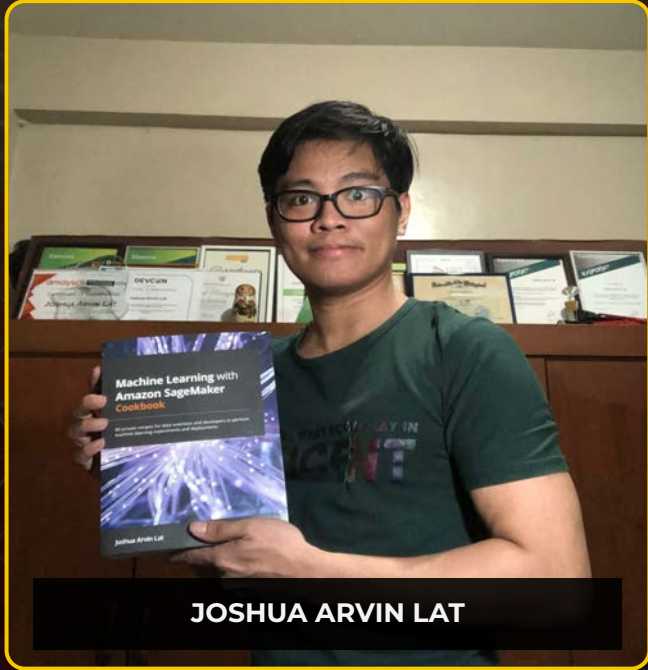




Infrastructure as Code (IaC) Security Best Practices and Strategies

Joshua Arvin Lat



JOSHUA ARVIN LAT



Chief Technology Officer of
NuWorks Interactive Labs



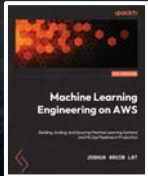
AWS Machine Learning Hero



Orange Boomerang: Digital Leader of the Year 2023 Award Winner 🏆



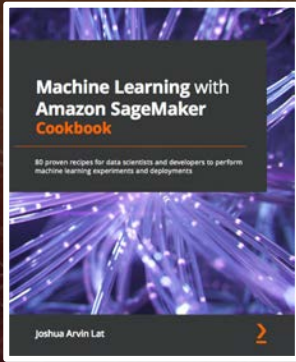
Author of 📖
Machine Learning with Amazon SageMaker Cookbook



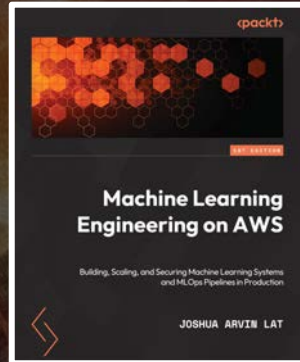
Author of 📖
Machine Learning Engineering on AWS



Author of 📖
Building and Automating Penetration Testing Labs in the Cloud



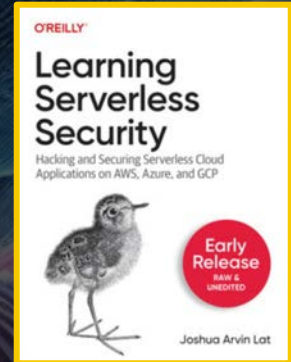
2021



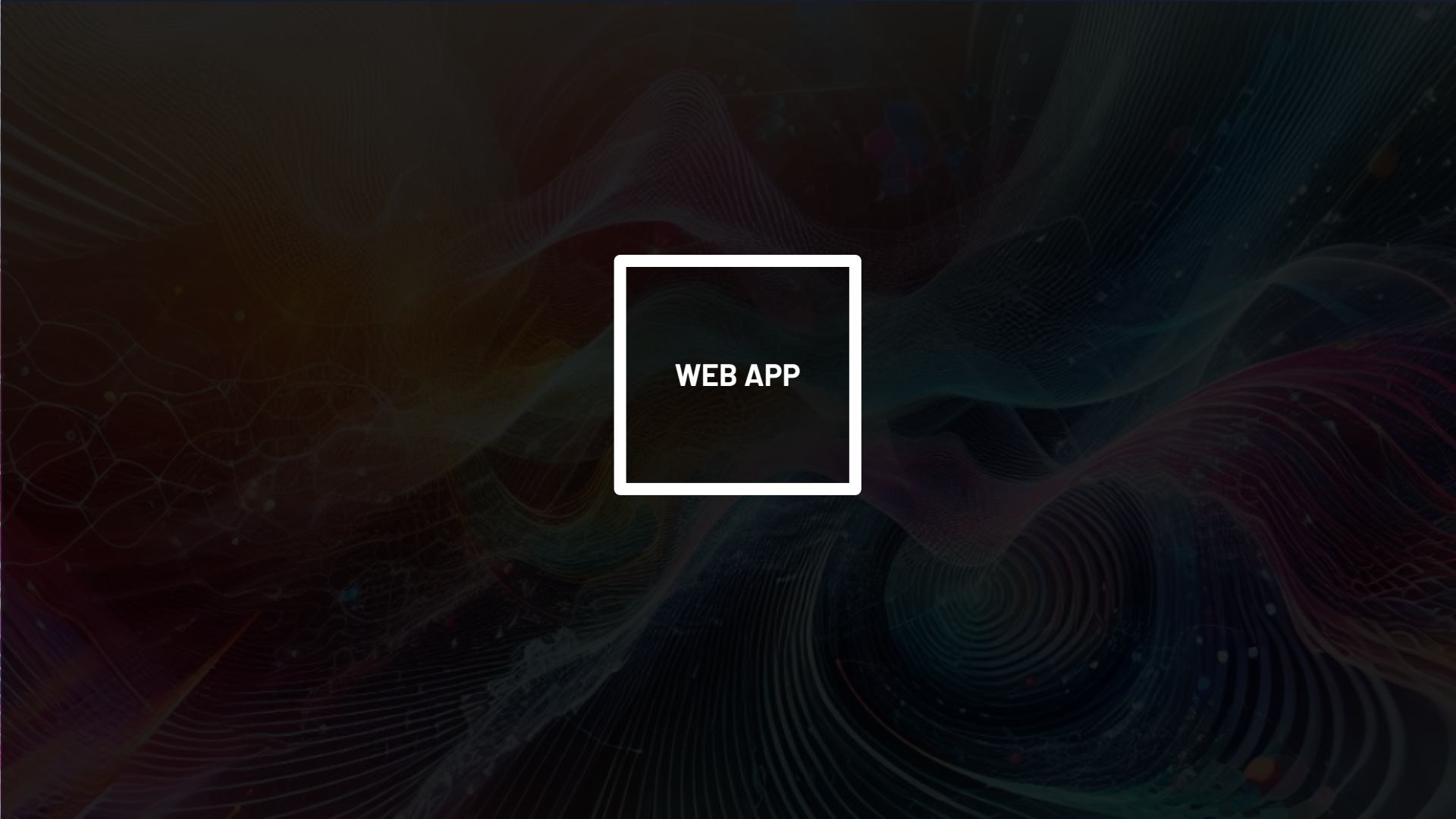
2022



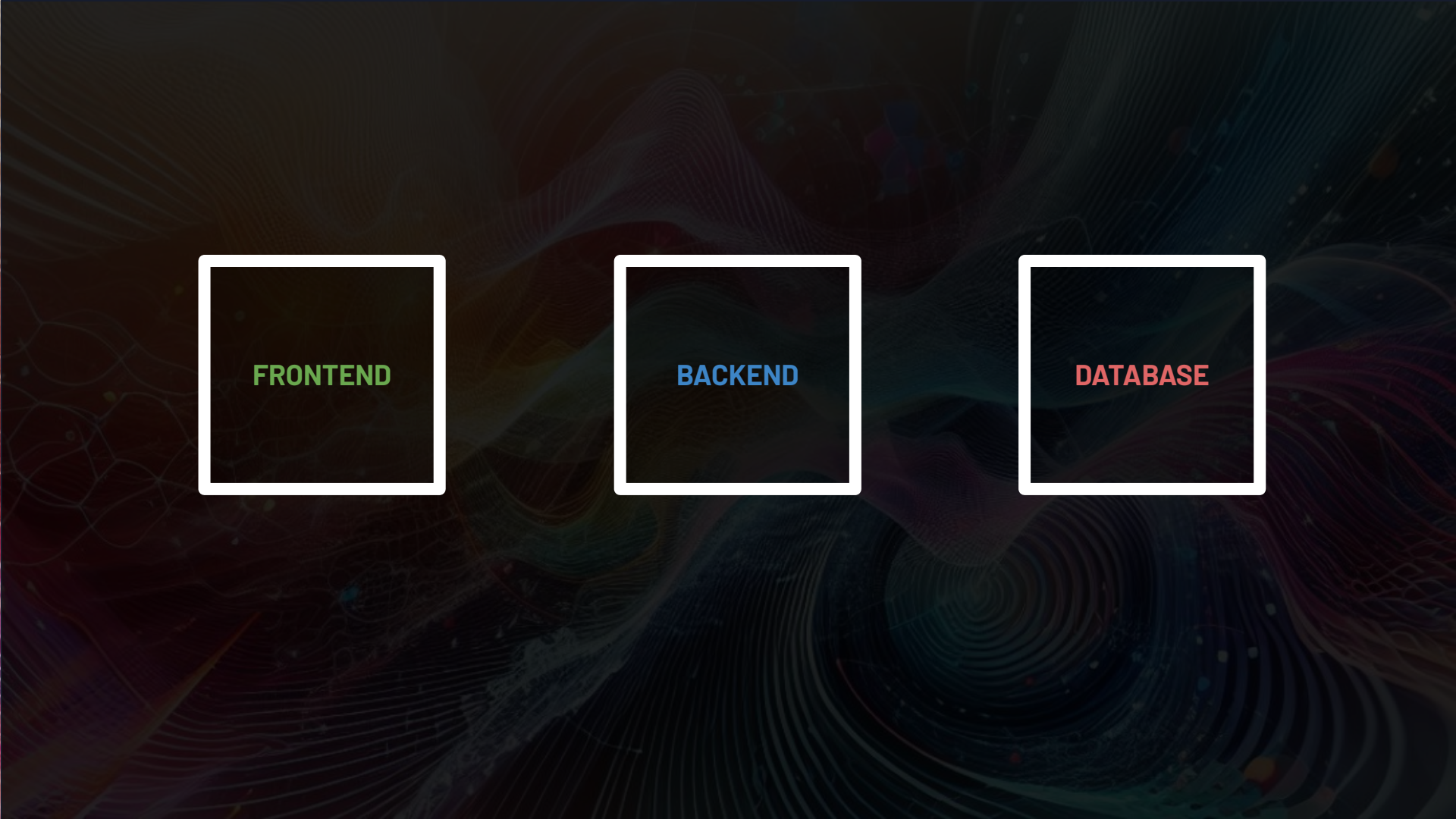
2023



2024

The image features a dark, abstract background with vibrant, flowing lines in shades of blue, purple, and red. The lines create a sense of movement and depth, resembling a digital or organic structure. In the center, a white square with a thin border contains the text "WEB APP" in a bold, white, sans-serif font.

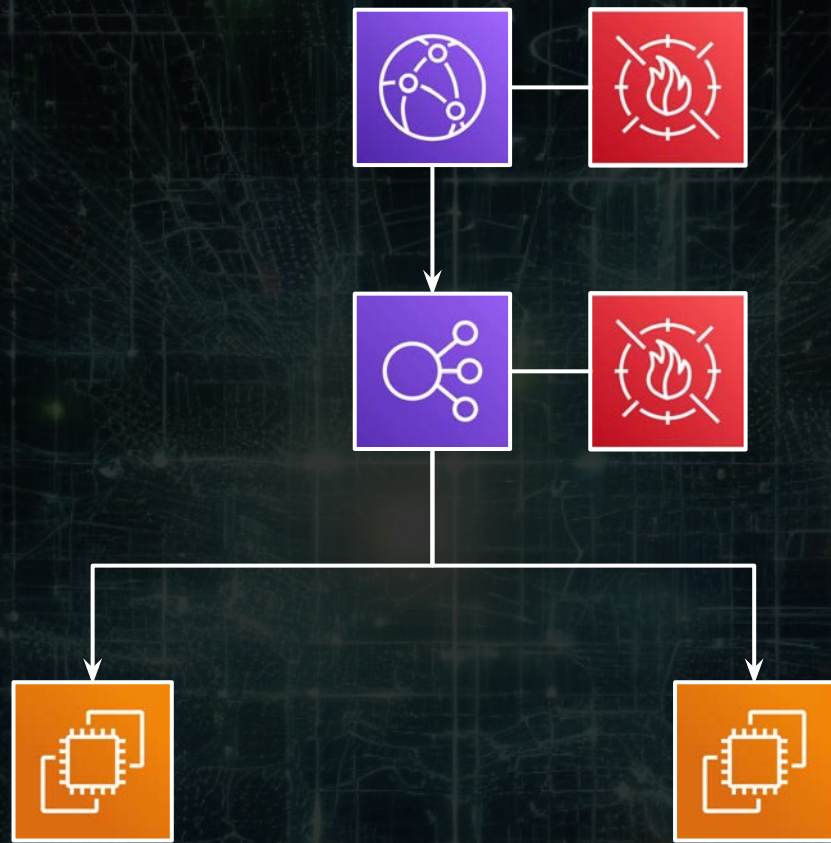
WEB APP

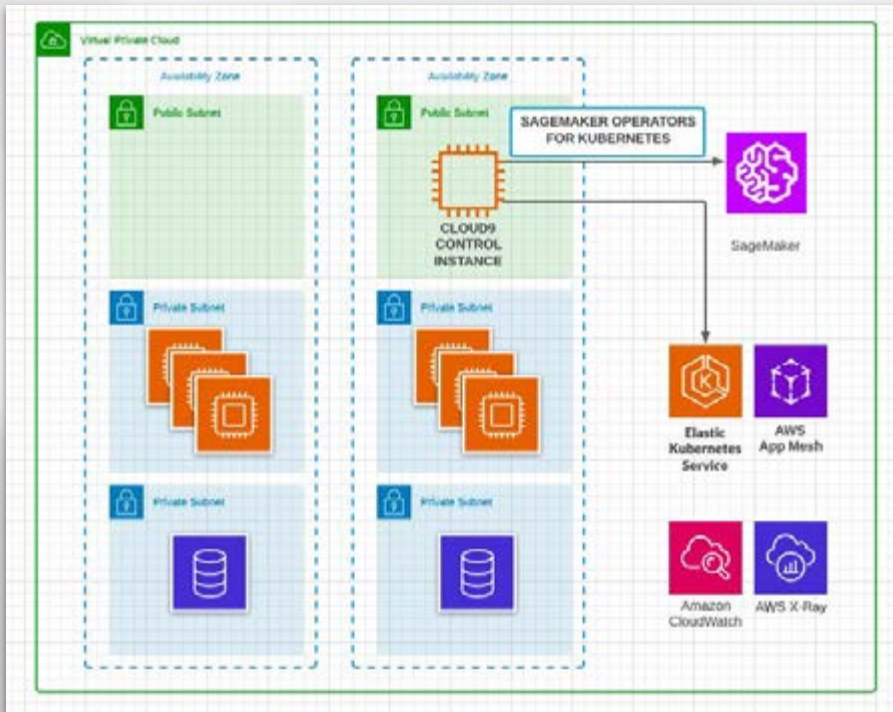


FRONTEND

BACKEND

DATABASE





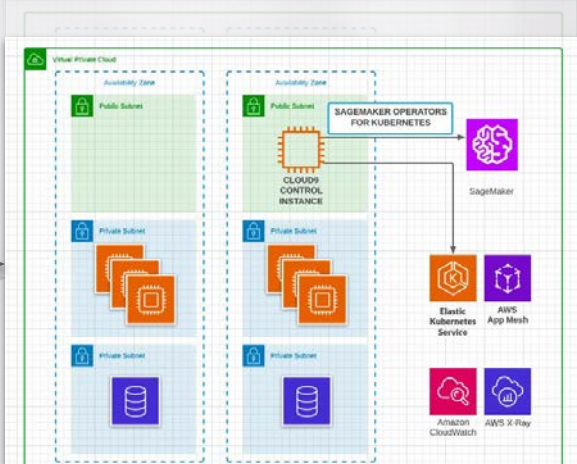
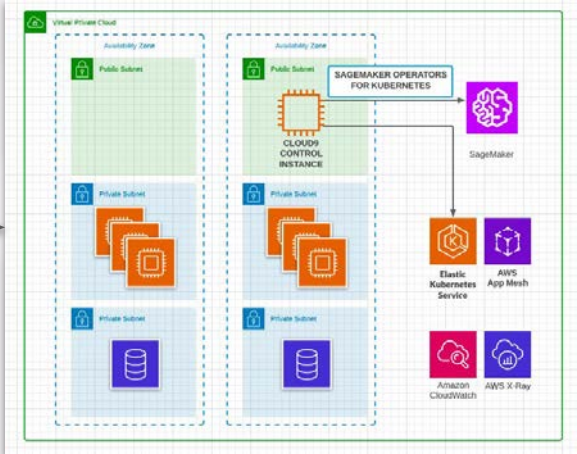
```
{
  'key': 'value'
}
```

```
}
  ,key, : ,value,
{
```



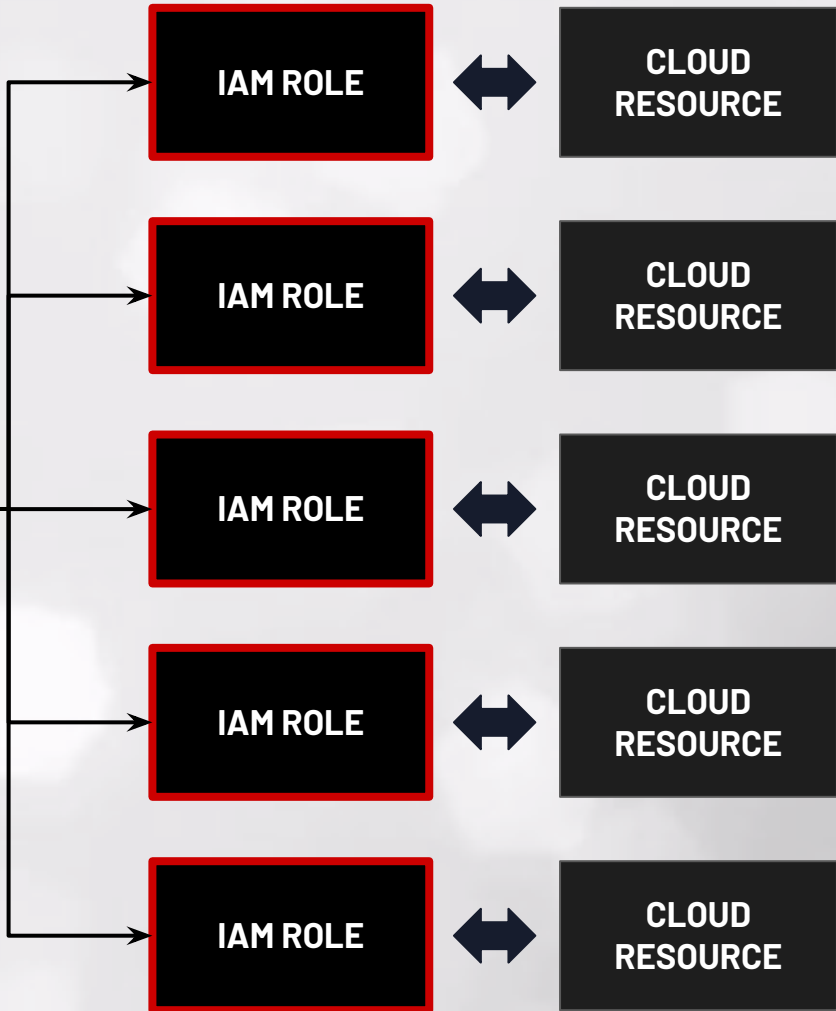
```
{  
  'key': 'value'  
}
```

```
{  
  'key': 'value'  
}
```




```
{  
  'key': 'value'  
}
```

```
}  
,key, : ,value,  
{
```



The background features a complex, abstract design. It consists of numerous thin, overlapping lines in shades of blue, purple, and red, creating a sense of depth and movement. The lines form various shapes, including concentric circles and wavy patterns. The overall color palette is dark, with the lines providing a vibrant contrast. The text is centered and stands out prominently against this intricate background.

Tag resources properly

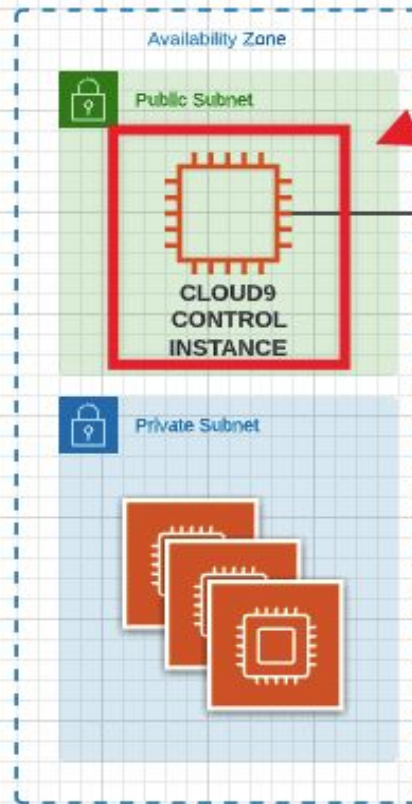
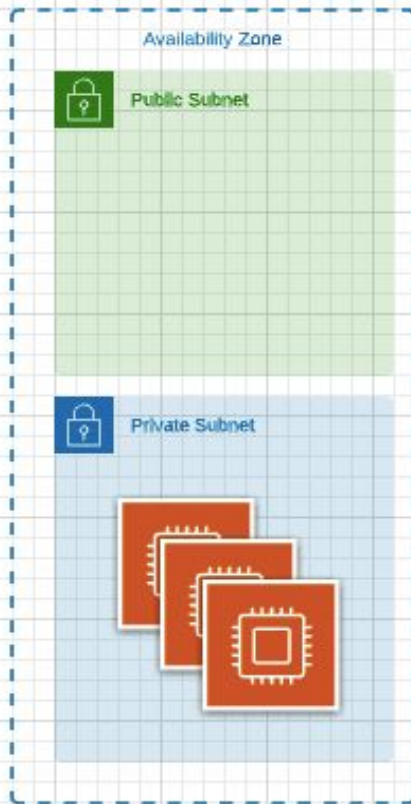
**Avoid insecure defaults and
regularly check for announcements
in cloud platforms**

The background features a dark, moody color palette of deep blues, purples, and blacks. It is overlaid with intricate, glowing patterns of thin, concentric lines and wavy, organic shapes that resemble digital data or neural network connections. The overall effect is a complex, layered, and futuristic aesthetic.

Secret Management & Permission Management



Virtual Private Cloud



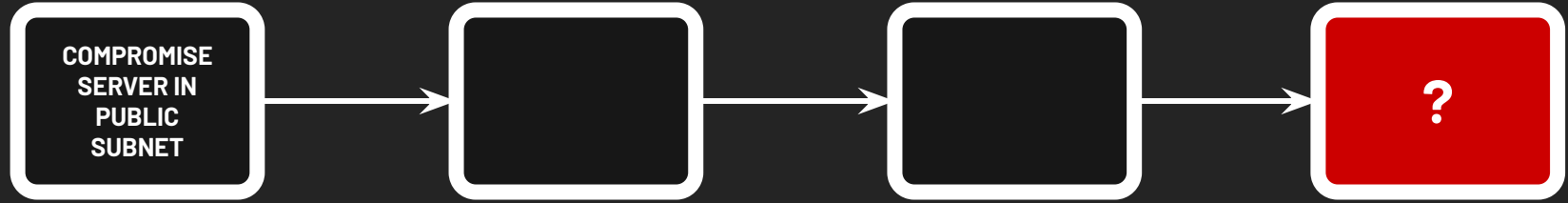
HIGH RISK?

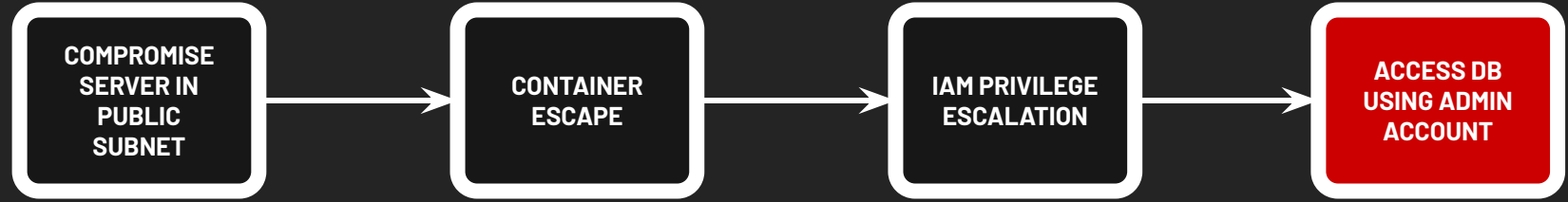


Elastic
Kubernetes
Service

The background is a dark, abstract composition. It features a grid of thin, light-colored lines that form a mesh-like pattern. Overlaid on this are several large, flowing, wavy shapes in shades of blue, purple, and red. The overall effect is a complex, layered visual texture.

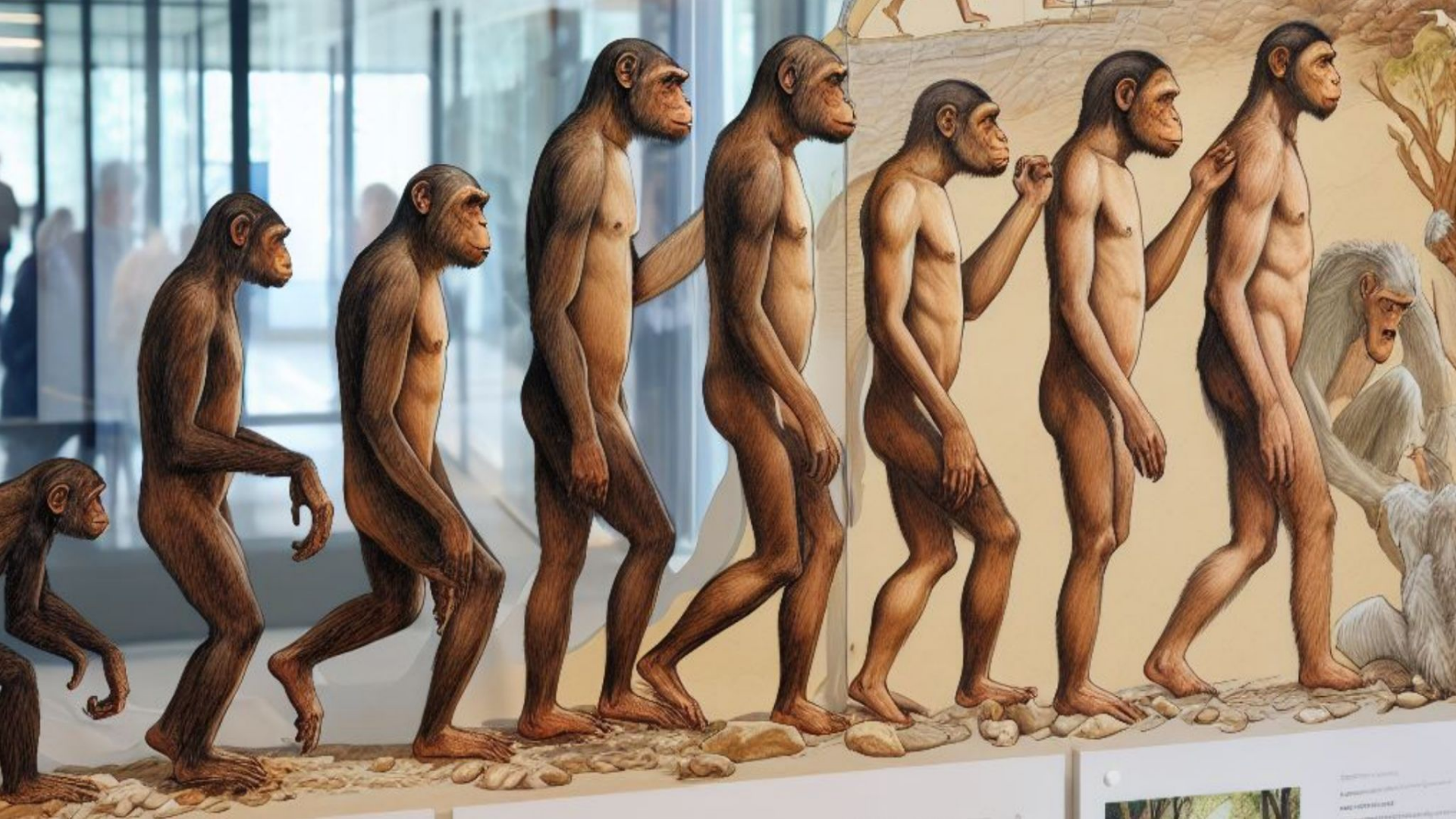
WHY?



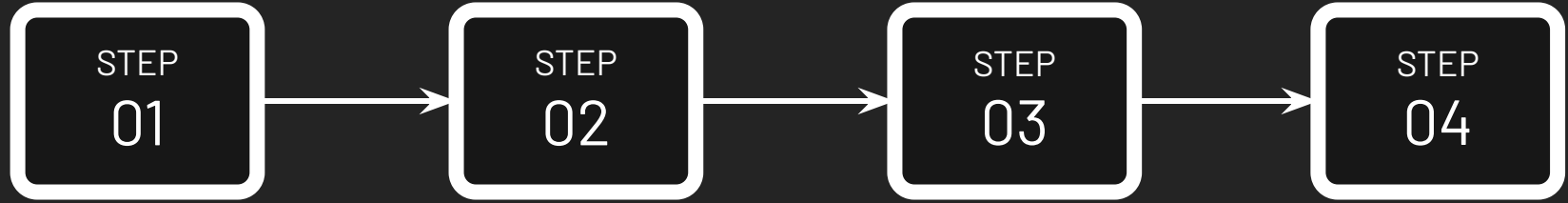




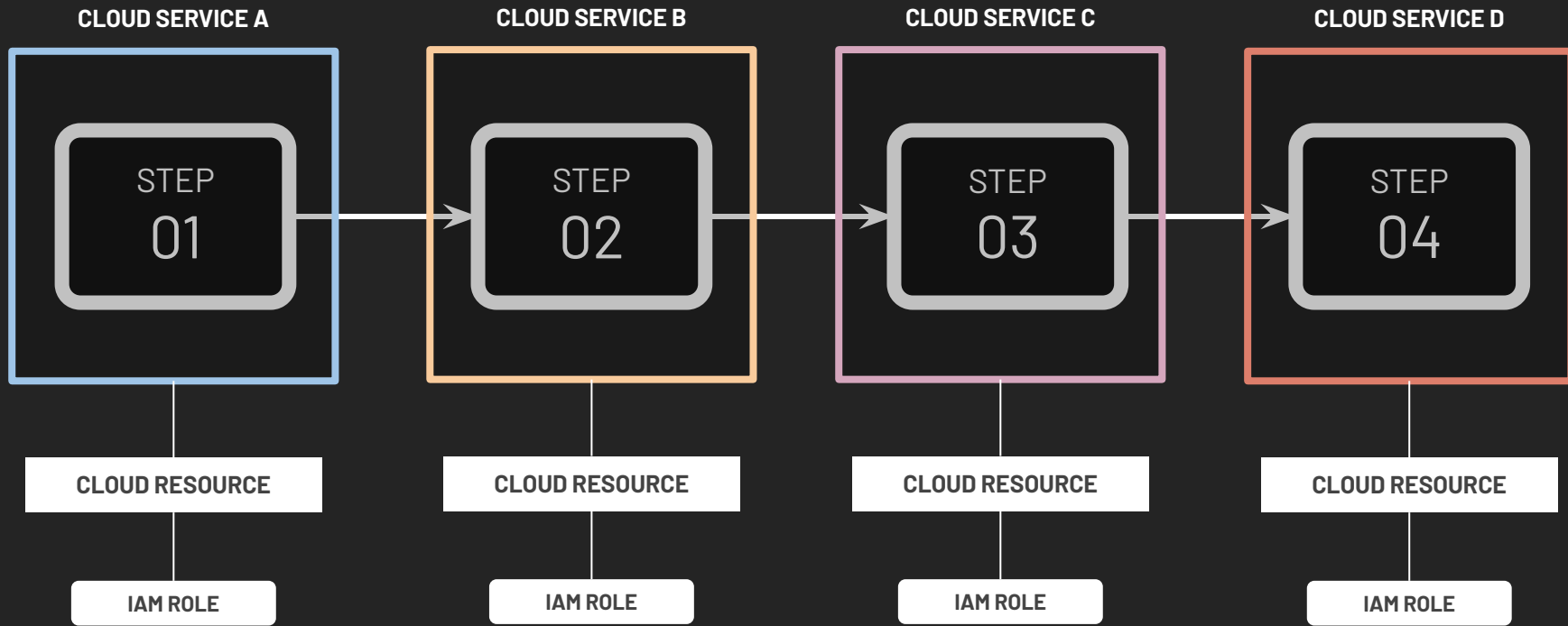
**Track and manage changes
using version control tools**



Use pipelines to analyze security vulnerabilities automatically



**Be careful when managing
resources with IaC in pipelines!**





POISONED PIPELINE EXECUTION

**Protect specific resources from
accidental deletion or modification**

The background is a complex, abstract composition of overlapping, semi-transparent layers. It features a variety of patterns: concentric circles, wavy lines, and a grid-like structure. The color palette is rich and diverse, including shades of deep blue, teal, purple, magenta, and warm orange. Small, glowing particles and dots are scattered throughout the scene, adding a sense of depth and movement. The overall effect is that of a dynamic, multi-dimensional space.

THE END



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