# CAIO MARTINHO DA SILVA, 26

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#### GOAL

Collaborate with businesses on deploying a well-architected cloud infrastructure and natively enable DevOps practices in their application lifecycle, so they have the solid foundation they need to focus on driving customer value by default.

#### **SUMMARY**

DevOps-oriented Cloud Engineer, consultant, and technical writer. Almost 4 years of experience in customer facing Cloud and DevOps roles at AWS, IBM, and Caylent. 4x AWS certified, Bachelor of Computer Engineer, and studying IT for the past 12 years.

#### **FORMAL EDUCATION**

Universidade Metodista de São Paulo - São Bernardo do Campo/SP, Brazil

**Computer Engineering** 

Jan 2017 - Dec 2021

Reynolds Secondary School - Victoria/BC, Canada

Grade 12 Aug 2012 - Jan 2013

#### PROFESSIONAL EXPERIENCE

### Caylent - Remote

Cloud and DevOps Engineer - Professional Services

Sep 2021 - Present

• Joining the consulting team to provide DevOps and Cloud capabilities to customers for new or existing environments and cloud migrations.

# AWS - São Paulo/SP, Brazil

Cloud architect intern - AWS Professional Services, Public Sector

Apr 2020 - Sep 2021

• Supporting the Professional Services team on architecting and implementing AWS Cloud Solutions, especially for DevOps and cloud orchestration projects.

## IBM - São Paulo/SP, Brazil

Technical sales intern - IBM Cloud, Hybrid Integration

Aug 2018 - Apr 2020

 Creating demonstration and Proof of Concept (POC) environments of the Hybrid and Multicloud portfolio, especially IBM Cloud Private and IBM Blockchain Platform.

#### PROFESSIONAL PROJECTS

Application migration from Aptible to AWS

Caylent, Sep 2021 - Mar 2022

Customer wanted to migrate from Aptible- an AWS-based managed cloud platform for HIPAA compliance- to a new AWS environment, and update their existing CI/CD workflow and build job to work on a single-branch approach. My job was to help discover current state and design future state architecture; help build the entire AWS account model and environment infrastructure; and enable CI/CD automation for the new environment and branching strategy. I created most of the base infrastructure Terraform modules, and deployed infrastructure using an environment per workspace approach on Terraform Cloud for better isolation. I updated the existing CI/CD pipeline configuration on CircleCI to enable Helm chart deployments to EKS, helped setup a pipeline to deploy application secrets to Secrets Manager, and helped implement the single-branch, single-image, multi-environment workflow to deploy application code to EKS. I created Bash scripts to facilitate migration and help developers in new day-to-day tasks. In 6 months, we accomplished the goals mentioned above, setting up 3 HIPAA-compliant environments- one environment per account-, including full ELK application monitoring, migrating 3 environments, and setting up 2 pipelines.

Customer wanted to optimize application troubleshooting by enabling centralized logging. My job was to automate application log collection from new EC2 instances, and integrate it with the centralized solution. I created a bash script to automatically install and configure the CloudWatch Agent based on a parameter in Parameter Store. The parameter stored the Agent configuration file pointing to the application log path, and sending the logs to a CloudWatch Log Group. Then, I created a Terraform script to launch the instances and bootstrap the bash script as user data, and to create the Parameter Store parameter with the user-provided Agent configuration file.

Customer wanted to optimize application troubleshooting by enabling centralized logging. My job was to automate application log collection from existing EC2 instances, and integrate it with the centralized solution. I created SSM documents to automatically install and configure the CloudWatch Agent based on a parameter in Parameter Store. The parameter stored the Agent configuration file pointing to the application log path, and sending the logs to a CloudWatch Log Group. Then, I created a scheduled CloudWatch Event pointing to a Lambda function to trigger the cross-account SSM Automation with user-provided parameters. And finally, a CloudFormation template deploys the solution, and serves as user interface to provide and update automation parameters.

Script translation from CloudFormation to Terraform

AWS, Aug 2021 - Sep 2021

Customer wanted all Infrastructure as Code scripts to be in Terraform. My job was to lead the project team on converting several CloudFormation templates into Terraform scripts. I enabled the team to start working with Terraform by creating and presenting a quickstart guide, and providing tips on Terraform best practices and how to convert specific CloudFormation capabilities not natively-supported by Terraform. I also manually translated

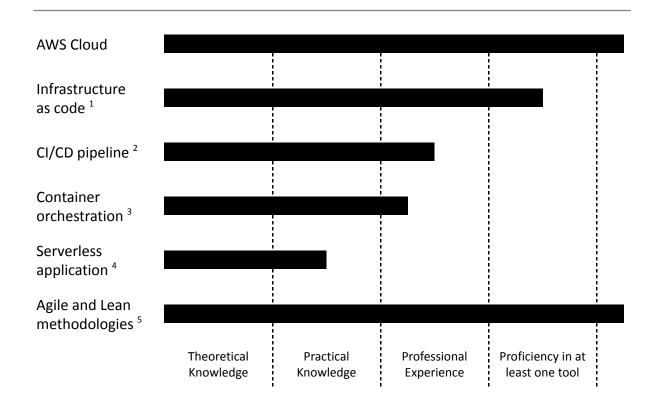
the most complex CloudFormation templates, and created a Terraform root module to orchestrate a multi-environment deployment.

Customer wanted to set CI/CD pipelines on Azure DevOps Pipelines to accelerate application migration and delivery to AWS, requiring yaml templates to reuse across different projects. My job was to provide a functioning pipeline deploying a React frontend to S3. I validated and adjusted existing templates for CI/CD stages, steps, and jobs, including scripts to invalidate CloudFront distributions and automatically rollback application deployment. I also configured variable groups on Azure DevOps Library for parameters and integrated Azure KeyVault for secrets being consumed by the pipeline.

#### PROFESSIONAL CERTIFICATIONS

- AWS Certified DevOps Engineer Professional In progress
- AWS Certified SysOps Administrator Associate AWS, 2021
- AWS Certified Developer Associate AWS, 2021
- AWS Certified Solutions Architect Associate AWS, 2020

#### **SKILL ASSESSMENT**



<sup>&</sup>lt;sup>1</sup> Terraform, CloudFormation, AWS CDK boto3; <sup>2</sup> CodePipeline, Azure DevOps Pipeline, CircleCI; <sup>3</sup> ECS, EKS; <sup>4</sup> Python, Lambda, API Gateway, SQS, DynamoDB; <sup>5</sup> Kanban, Scrum, Working Backwards

## **SELF-IMPROVEMENT ACTIVITIES**

### **Authorial documentation:**

- "CloudWatch Agent deployment automation", project documentation AWS, 2021
- "CI/CD Pipeline on Azure deploying to AWS", customer documentation AWS, 2021
- CloudFormation scripts and execution guide, customer documentation AWS, 2021
- AWS Landing Zone org and network design, customer documentation AWS, 2021

# **Volunteering:**

- Financial Education, Mathematics and Portuguese Tutor Metodista, 2018/2019
- Project Leader Façacontecer, 2018

# **Competences:**

• Fluent English - CCAA, 2007/2011