

# Michael Zarate

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## Work Summary

DevOpsSec engineer with 8 years of experience with working with teams to design, build and troubleshoot various systems. Leads cross functional teams to accomplish VA cloud modernization and cloud migration. Educates new teams on cloud best practices to ensure proper design with Enterprise Architecture and Cloud Architecture teams.

## Technical Skills

- AWS: EC2, S3, CloudFront, Route 53, API Gateway, Lambda, CodeBuild, CodePipeline
- GCP: Google Cloud Storage, Google Compute Engine, Google Kubernetes Engine, Google App Engine, Google Cloud Shell
- Azure: Virtual Machines, Storage Accounts, Azure SQL, Azure Data Factory
- Programming Languages: Python, JavaScript, Ruby, C#,
- Operating Systems: Windows, OSX, Linux
- Tools: Terraform, Ansible, Jenkins, Bash, Powershell, Visual Studio Code JetBrains IDE, Microsoft Visual Studio Code, Microsoft Office

## Experience

### IT Specialist, GS-13, DevSecOps Engineer

Department of Veteran's Affairs, Austin, Texas

April 2019 – Present

- IT Specialist for the Department of Veterans Affairs, Financial Services Center, High-Performance Operations Division (HPOD), Innovations/Solutions (IS) Branch.
- Serve as the DevSecOps Engineer under the HPOD-IS branch Section Chief and is responsible for the collaboration between all stakeholders from planning through delivery and automation of the delivery process to improve deployment frequency, achieve faster time to production, lower the failure rate of new releases, shorten the lead time between fixes and improve mean time to recovery.
- Subject Matter Expert for the DevSecOps delivery toolchain: Continuous Integration, Continuous Delivery, and Continuous Deployment.
- Primary adviser to HPOD-IS on all items related to the DevSecOps pipeline for the FSC: pre-commit checks, build-time checks, test-time checks, and deployment checks
- Serve as a key advisor, engineer, integrator, and authoritative security consultant to HPOD-IS.
- Leverage technology and methodologies to enhance the delivery of financial services, determine and recommend system improvements, implement the FSC strategic plan, business process, and technologies that support financial product lines provided to VA customers and other government agencies through a shared service business model.

## Sr DevOps Engineer

Halfaker and Associates, Austin, Texas

October 2019 – April 2020

- Deployed production ready Jenkins for automation
- Created Kanban boards for team work visibility and tracking
- Promoted a Software Development Life Cycle problem solving approach to infrastructure and automation tasks.
- Manage 10 client production systems as they migrated into the cloud
- Manage 150 virtual Machines in a mixed Linux and Windows environment
- Implement automated infrastructure configuration management with Terraform
- Create CI/CD pipelines with Jenkins
- Focus on delivering highly available, fault tolerant systems in AWS and Azure.
- Focus on promoting cloud best practices

## Application Engineer

Dell Technologies, Round Rock, Texas

February 2017 – October 2019

- Application Engineer lead for finance and sales. Responsible for deploying code, monitoring applications, and supporting Federal production and operations.
- Identified coding discrepancies and assisted in implementing best practices for greater application deployment efficiency, keeping in compliance with SOX and NIST 800-171
- Lead solution designer for creating the Federal “Break Glass” tool to meet security requirements on privileged access to production systems, with automation and integration in the Cherwell ITSM tool.
- Deployed Gitlab with LDAP integration into a lab environment to demo to leadership the power of modern version control and CI/CD.

## Software Engineer Internship

Commscope, Tempe, Arizona

June 2016 – August 2016

- Established an automated integration testing infrastructure with an MSBuild script running unit tests, creating and establishing database schemas, migrating data with fluent migrator and SQL Server, and performing integration tests.
- Developed a new design prototype using Microsoft Entity Framework, Entity-Attribute-Value (EAV), Repository and Unit of Work design patterns.
- Tested functional changes to code by measuring and validating performance of features between major released and unreleased versions.
- Incorporated Stakeholder Review Feedback by streamlining the user interface of the configuration application as part of Agile methodology.

## Military Experience

US ARMY, Fort Bliss, Texas

September 2007 – September 2012

- 11<sup>th</sup> BDE 1-43BN Echo Co Communications and COMSEC NCOIC

- Held a Secret Security Clearance.
- Managed and maintained accountability of Company's communication equipment with an estimated value of \$700,000.
- Organized the migration of user data and machines from original company site to a new site.
- Oversaw radio communications within company operations. Integrated multi-channel communication with Battalion TOC.
- Maintained and utilized cryptographic keys and fill to secure radio communication.
- Deployed to Qatar in support of Patriot Missile Systems for OEF.
- Army Commendation Medal, Warrior Leadership Course Ribbon, Good Conduct Medal, Army Achievement Medal

## Education

### Bachelor of Science in Engineering

Arizona State University, Tempe, Arizona

Computer Systems Engineering

December 2016

G.P.A. 3.5

## Academic Projects

### Systems Capstone Project

- Led a team of bright engineering students on a yearlong project.
- Collaborated and designed with team to build an automated shutter system.
- Delegated subtasks to team members that best reflected their skills and interests.
- Developed high-level system design and architecture.
- Created design diagrams at system and component levels.

### iOS App

- Developed an Address Book application with an integrated map for iOS.
- Created a multi-view application utilizing CoreData, MapKit, and Segues for navigation.
- Configured Core data for permanent storage of user data.
- Implemented MVC architecture into application design pattern.

### API Driven Web App

- Co-Developed an API-driven web application to provide the user localized information of tracked, favorited, and rated locations within the area.
- Built application's core with APS.NET and Web Forms.
- Created custom APIs and hosted the endpoints, simplifying API calls to provide clean data to the user.
- Created API functionality with Yelp to get geocoded-based locations of stores, available products, and customer ratings.
- Created API functionality using OpenWeatherMap to provide local weather information.

## Personal Projects

- Perusing Associate Google Cloud Engineer certificate and Certified Kubernetes Administrator Certificate
- Deploy sample styled microservice apps using Kubernetes Deployments
- Deployed a fault tolerant, highly-available WordPress site across multiple Availability Zones with AWS RDS, EC2 Auto-Scaling Groups and EC2 Volume Snapshots.
- AWS based serverless portfolio with ReactJS front end, housed in an S3 bucket, deployed with an automated CI/CD pipeline with GitHub, AWS CodeBuild/CodePipeline, AWS Lambda
- AWS based serverless blog using Hexo, AWS S3, AWS Route 53, and AWS CloudFront
- Use Terraform to automate provisioning and deployment of autoscaling group of Apache Web Servers behind an Elastic Load Balancer in AWS
- Python Flask Web Apps. Key functionalities: Google and Facebook OAuth2 login, CRUD functionality with user data using SQL Alchemy; Front End: Bootstrap, Google Geocode API, Foursquare API

## Certificates

- CloudBees University: Jenkins – Fundamentals
- CloudBees University: Jenkins Administration – Fundamentals
- CloudBees University: Jenkins Pipeline – Fundamentals
- Docker Mastery: The Complete Toolset from a Docker Captain