# NATHAN DOUGLAS

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Senior DevOps Engineer with 10+ years' experience leading cloud infrastructure migrations, developing applications, building CI/CD pipelines, and mentoring cross-functional teams to deliver reliable, scalable solutions.

#### EXPERIENCE

#### Senior DevOps/Platform Engineer

Oct. 2020 - Present

Agile Six Applications, Inc

San Diego, CA (Remote)

- Migrated the Check-In Experience product to a new AWS account (see below)
- Served as Tech Lead for the VA.gov Content Management System product (see below)
- Served on a task force to improve hiring practices for DevOps engineers
- Hired multiple Senior Engineers and a Software Quality Architect
- Contributed to contract proposals and case studies
- Ensured and documented compliance with regulations across multiple products
- Developed and maintained CI/CD pipelines using Jenkins and GitHub Actions

# Senior Software/DevOps Engineer

Jan. 2016 - Oct. 2020

Midland Park, NJ (Remote)

Convention News Company

- Architected infrastructure and built the content and account management services for FutureFlight.aero (see below)
- Constructed backend services for Business Jet Traveler (see below) and Aviation International News
- Migrated all products from Acquia hosting to AWS, reducing yearly IT operating costs by 70%
- Developed an app to centralize ad sales, subscriptions, and circulation data
- · Guided and mentored junior engineers, emphasizing soft skills and engineering best practices
- Created and maintained Vagrant (and, later, DrupalVM) development environments
- Developed and maintained CI/CD pipelines using CodeBuild/CodePipeline

Software Engineer Jan. 2012 – Dec. 2015

**DEVONtechnologies** 

Bietigheim-Bissingen, Germany (Remote)

- Developed, launched, and maintained sync technologies for flagship apps
- Collaborated effectively within teams dispersed across six countries and four continents
- Led the adoption of Agile project management, Lean principles, and DevOps methodologies
- Introduced CI/CD pipelines, sharply reducing failure rate and manual testing toil
- Automated certificate and configuration management for release processes

## Major Projects

# VA.gov Check-In Experience | Terraform, Node.js, AWS, GitHub Actions

Feb. 2024 – Present

CHIP (Check-In Integration Point) allows Veterans to check in for appointments at VA facilities.

LoROTA (Low-Risk One-Time Authentication) allows checking in quickly while protecting PHI/PII.

- Migrated infrastructure for CHIP, LoROTA, and related projects between AWS accounts
- Migrated Infrastructure-as-Code for all projects from CloudFormation to Terraform
- · Introduced and wrote Terraform tests for automated testing of reusable Terraform modules
- · Introduced and wrote system tests spanning multiple products and their upstream integrations
- Migrated from using IAM service accounts to OIDC role assumption
- · Managed compliance and collaboration in ATO (Authority to Operate) and PDB (Product Decision Board) processes

#### **VA.gov Content Management System** | *Drupal, PHP, Node.js, Ansible*

Oct. 2020 - Feb. 2024

The CMS allows VA.gov content editors to create, edit, and publish content.

Content is delivered to VA.gov via a custom static build system.

- Directed primary development of the CMS's custom modules and ancillary services
- Maintained, upgraded, and refined CI/CD pipelines in GitHub Actions and Jenkins
- Parallelized test suite, reducing test time by 60%
- Led two major version Drupal upgrades of 8 9 10
- · Refactored the CMS' internal content release management system to reduce toil and deployment stress

- Maintained and improved CI/CD pipelines for the content build and release processes
- Developed and documented procedures for disaster recovery, out-of-band deploys, etc
- Developed and maintained DDEV-based local development environments

#### **FutureFlight.aero** | *Drupal, PHP, Node.js, Ansible, CloudFormation*

Jan. 2019 - Oct. 2020

FutureFlight is an industry news site with a directory of EVTOL aircraft and related services.

- Architected server infrastructure for Drupal content management system
- Wrote Lambda function code for subscriber account services
- Designed and implemented infrastructure for subscriber account services
- Designed and implemented data model for EVTOL aircraft directory
- Implemented local development environments using DrupalVM

#### **Business Jet Traveler** | *Drupal, PHP, CloudFormation*

Jan. 2018 – Dec. 2018

Business Jet Traveler is a monthly magazine for private jet owners and operators.

- Designed and implemented data model for aircraft directory
- Wrote a map-based tool to visualize aircraft specifications
- Migrated all infrastructure from Acquia hosting to AWS in CloudFormation
- Implemented and maintained local development environments using Vagrant across multiple OSes

### TECHNICAL SKILLS

Languages: JavaScript, PHP, Bash, Rust, Python, C, Objective-C, Clojure

Infrastructure-as-Code: Terraform/OpenTofu/Terragrunt, Ansible, CloudFormation

**Containerization**: Kubernetes, Docker, LXC **CI/CD**: GitHub Actions, Jenkins, AWS CodeBuild

**Logging/Monitoring**: Datadog, AWS CloudWatch, PagerDuty, Sentry **Methodologies**: DevOps, Agile, GitOps, DevSecOps, Scrum, Kanban

Miscellaneous: JSON:API, GOFAI, LATEX

# EDUCATION

# University of Nevada at Las Vegas

Las Vegas, NV

Bachelor of Arts in Computer Science

May 2009 - Dec 2011

#### Personal Projects (Just for Fun)

■ Blackpool: An implementation of the Lox programming language and virtual machine (*Rust*)

**Goldentooth**: Raspberry Pi Kubernetes cluster projects (*Ansible, Terraform, Bash*)

**Greenstone**: A cycle-accurate NES emulator (*Rust*)

**Sunhouse**: A simple ray-tracing renderer (*Rust*)

Oldstones: An implementation of Tim Boring's simple orchestrator (*Go*) CLORK: A port of *ZORK I* from the original microcomputer ZIL (*Clojure*)