

Matthew J. Alvis

Solutions Architecture | Systems Engineering | Site Reliability | DevOps | Cloud | IaC | Linux
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Certifications

- 5x AWS Certified
 - ◆ Solutions Architect: Professional
 - ◆ Solutions Architect: Associate
 - ◆ SysOps Administrator: Associate
 - ◆ Developer: Associate
 - ◆ Cloud Practitioner
- 2x Hashicorp Certified
 - ◆ Terraform Authoring & Operations Professional
 - ◆ Terraform Associate
- CKA - Certified Kubernetes Administrator
- Red Hat Certified Systems Administrator

Academia

- University of Arkansas at Little Rock (UA Little Rock)**
- **Bachelor of Science**, Systems Engineering
 - ◆ Focus area: Computer Systems.
 - **Associate of Science**, Computer Programming
 - **Minor**, Mathematics
 - 2015 Outstanding Capstone Award recipient
 - ◆ Obtained provisional patent via UALR TechLaunch for "HALO", the Helmet Augmented Lighting Orientation system aiming to correct headlight orientation during motorcycle operation based on helmet feedback.

Professional Experience

Cloud Engineer - Platform Engineering, at First Orion (Telecom). (May 2021 – present)

- **Designed** systems and processes leveraging AWS service suite: EC2, ECS (managed + fargate), EKS, Lambda, S3, VPC / networking fundamentals, ELB (ALB/NLB), RDS / Aurora, DynamoDB, ElastiCache, Kinesis / Firehose, SQS, SNS, CloudWatch, Event Bridge, Systems Manager, Step Functions, CloudFormation Stacks / StackSets.
- **Migrated** 30+ legacy OpsWorks Stacks (Chef) deployments to Terraform & Ansible based deployments
- **Architected** and led IaC-driven (Terraform / Ansible) deployment and complete migration of Zabbix monitoring across 300+ servers, proxies, agents, and geographically dispersed hybrid environments in cloud/physical environments. Solved via IaC with a focus on BCDR, cost-effectiveness, scalability, and performance.
- **Engineered** ServiceNow event-driven CMDB discovery process using Python boto3 SDK and ServiceNow API to load 25,000+ CIs daily via ECS / EventBridge, with observability and monitoring via AWS CloudWatch.
- **Developed** python3 module "fomo" ("Fear Of Major Outages") to automate the administration/reporting of monitoring/observability solutions such as CloudWatch, Zabbix, and PagerDuty.
- **Automated** recurring 6+ hour event-driven monthly reconciliation processes via AWS Step Functions, achieving 98% reduction in operational support and full observability and monitoring via AWS CloudWatch / SNOW.
- **Monitored** 1000s of cloud and traditional systems, services, and networks, serving as Tier 1 escalation point for AWS Cloud environments, and owning observability tools such as Zabbix, CloudWatch, PagerDuty, New Relic, Grafana, and ServiceNow while providing daily support for an internal user base of 300+ employees.
- **Supported** microservices and event-driven workloads on EKS, ECS, Fargate, and Lambda, driving ITSM process via CI/CD workflows using tools such as ServiceNow, Jira, BitBucket, ECR, CodeBuild, CodePipeline, Terraform, Atlantis.
- **Resolved** many major incidents with detail-oriented precision, driving both short-term service restoration and long-term problem management and resolution within the ITSM and Engineering organization.
- **Governed** resources at scale across 80+ AWS accounts via AWS Organizations, Config, Security Hub, CloudTrail, CloudFormation StackSets, Terraform, ServiceNow, Orca, and custom reporting and STS based tooling.
- **Secured** AWS organization at scale via IAM (SSO RBAC, least privilege, password policy, MFA) and security services such as VPCs, SGs, NAT, WAF, Secrets Manager, Parameter Store, AWS Config, Inspector, Security Hub, and SCPs.
- **Advised** product owners and support staff in SRE SME and performance engineering best practices for the purpose of defining KPIs, generating runbooks, and solution architectural/technical diagramming, leading to considerably reduced MTTA / MTTR for service support, escalations, and incident management across the organization.

Unix / Linux Systems Engineer, at Dillard's Inc (Retail) (Jan 2015 – May 2021)

- **Administered** 1000s of Linux/Unix based solutions: SSH, DNS, NTP, SMTP, NFS, LVM, Syslog, Networking (Bonding).
- **Supported** BCDR configurations across a variety of technologies - Lenovo X, HPE DL380 scale-outs, IBM POWER (7/8/9), across bare-metal and virtualized systems on VMware / IBM PowerVM, load-balancing (F5), configuration (RAID, LACP, Bonding), and backups, (IBM Spectrum Protect, Storix).
- **Championed** rapid adoption of Ansible configuration as code for 400+ RedHat Linux systems, reducing configuration time by upwards of 75% and maintaining standards and consistency across our environment..
- **Engineered** APEX - the Aggregate Patch EXperience - for a 95% time reduction in Linux patching orchestration, handling the full patch lifecycle, including schedules, notifications, backs up, updates, and validation with BigFix, python, bash, PowerShell, CLIs/APIs, and persistence.
- **Streamlined** deployments of VMs on VMware ESXi via PowerShell PowerCLI, later migrated to Terraform, increasing deployment consistency and reducing VM build time by over 50%.
- **Automated** backups and reduced routing maintenance activities by 90% for all supported platforms; VM Snapshots, IBM FlashCopy clones of SAN attached systems, and the full-system LVM based backups of bare-metal / RAID systems via the Storix SBAAdmin server-client software.
- **Strategized** and led roll-out of agent-based monitoring across all Linux/Unix systems via Zabbix, advising stakeholders on custom monitoring solutions for production workloads for reactive on-call monitoring, alerting, RCAs, system performance reviews, and anomaly detection.

Owner/Lead Designer, at Mali Tech Services, LLC (Technology) (Mar 2011 – July 2015)

- **Co-founded** freelance Web Development and IT consulting company while in college.
- **Contracted** personal and small business design projects, performing on-boarding, consulting, contract negotiation and management, domain registration, hosting, and development at competitive rates with white glove support.
- **Developed** and supported custom designed WordPress sites, including registrations, hosting, MySQL DBMS deployment/management, PHP updates and custom plugin integrations, ongoing software updates and support.
- **Built** dynamic and mobile responsive websites using HTML, CSS, and Javascript, with a close eye on the latest trends and a focus on cross-browser support and version support for Internet Explorer (at the time).
- **Performed** graphic design in Adobe Photoshop / GIMP on an as-needed basis depending on client requirements.

Skills

<u>Code</u>	<u>Deployments</u>	<u>AWS Cloud</u>	<u>Systems</u>	<u>Observability</u>
Bash	CI/CD	Compute (EC2, ECS, Lambda, EKS)	Linux (RHEL/Ubuntu)	AWS CloudWatch
Python	GitHub/BitBucket	Scalability (Auto-scaling, ELB, API GW)	Unix (AIX)	Zabbix
Ansible	CodeBuild	Data (S3, RDS, Aurora, Dynamo)	Docker	PagerDuty
Terraform	CodePipeline	Network (VPC, SGs, NACL, TGW, WAF)	Kubernetes	OpenSearch
PowerShell	Terraform	Security (IAM, IdC, SecHub, Inspector)	VMWare vSphere	Grafana
SQL	Atlantis	AWS Organizations (Admin, SCPs, CT)	HPE / Lenovo	Prometheus
Node	CloudFormation	CICD: CodePipeline/CodeBuild	IBM POWER 8/9	New Relic
Java	Jenkins	Automation: Systems Mgr, CFN	Brocade SAN	ServiceNow