

# Ian Hundere

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"perpetually taking an open book test while having fun"

## Summary

A passionate educator turned problem solver with extensive experience in cloud infrastructure, DevOps, and software development. I leverage my educational background to foster clear communication and collaboration while tackling complex technical challenges. Skilled in building integrated solutions with AWS, Kubernetes, Terraform, and CI/CD pipelines. Proficient in scripting with Python, Bash, and Go to automate processes, reduce manual tasks, and improve system efficiency. I also enjoy self-hosting a variety of applications (e.g., Ninjam, Filebrowser, UniFi Controller) on a 5-node K3s cluster, which deepens my hands-on experience with cloud infrastructure and automation. Always eager to tackle new challenges and committed to continuous learning and growth in the ever-evolving tech landscape.

## Skills

**Cloud Infrastructure:** AWS, Kubernetes, Terraform, Docker, Packer, Vagrant, Ansible

**Programming/Scripting:** Python, Bash, Go

**CI/CD:** GitHub Actions, GitLab CI, CircleCI, Jenkins, Helm, Git, Flux, Argo CD

**Monitoring & Observability:** Datadog, New Relic, Prometheus, Grafana, Zabbix, Sumo Logic

**Security:** Vault, Consul, Sigstore, OpenID Connect

**Databases & Storage:** PostgreSQL, RDS, S3, DynamoDB, MongoDB

## Open Source Contributions

### Sigstore Projects

- **cosign:** *Added TSA certificate chain check for environment variables and TUF targets*
- **rekor:** *Integrated Redis authentication for better security and performance*
- **sigstore:** *Implemented TSA URI for custom metadata to resolve cosign verification errors related to timestamps*
- **scaffolding:** *Fixed TSA cert-chain split function to avoid downstream errors*
- **helm-charts:** *Improved resiliency by adding CronJob support for copySecretJob, enhanced certificate handling with TSA cert-chain support and optimized scalability/scheduling (tolerations, nodeSelector, affinity) across all Sigstore Helm charts*

### Secure Systems Lab Projects

- **securesystemslib:** *Added AWS KMS signing support and refactored AWSSigner for better flexibility / security*

### Other Projects

- **elektroid:** *Developed Analog Heat +FX support*
- **overwatch:** *Integrated Analog Heat +FX functionality*

## Experience

### Senior DevOps Engineer | Liatris | Remote

March 2023 – Present

- Deployed and managed private Sigstore stacks, enhancing security and immutability of build artifacts, incorporating pipeline attestations from development to production
- Achieved SLSA Build Level 3 by integrating GitHub Artifact Attestations for build provenance, securing the software supply chain with minimal infrastructure across multiple projects
- Automated the generation of Certificate Authorities (CAs) and intermediate certificates for Sigstore deployments, reducing manual security management by 30%
- Captured attestations using AWS Lambda, visualizing data in OpenSearch for streamlined provenance analysis
- Troubleshoot EKS-related issues, including network policies and persistent storage, improving cluster reliability by 25%
- Designed and implemented observability solutions with Prometheus, Grafana and Fluent Bit for robust monitoring resulting in a 40% reduction in system downtime through proactive monitoring
- Led the migration from legacy pipeline tools to more scalable, efficient alternatives

### DevOps Engineer II | Oddball | Remote

April 2022 – March 2023

- Led the DevOps Community of Practice, mentoring junior engineers and sharing best practices across the team
- Developed a Slack-based Terraform drift detection system to alert on infrastructure changes, ensuring real-time visibility into AWS GovCloud resources
- Applied log processing and regex to filter noisy logs, improving the monitoring of Kubernetes pods and infrastructure
- Built and maintained dashboards and synthetic tests, using Bash to ensure Terraform state parity
- Created custom IAM permission boundaries to prevent privilege escalation and limit the scope of IAM users and roles
- Migrated legacy Jenkins jobs to GitHub Composite Actions, increasing CI/CD efficiency
- Shifted a Ruby-based sign-in service to a microservice through containerization, improving resiliency and scalability

- Cloud Infrastructure Engineer II** | Revel Systems | Atlanta, GA November 2020 – April 2022
- Led efforts to improve developer velocity by bundling monitoring with deployments (EKS, ECS, EC2, RDS) using custom Terraform modules and the Datadog provider
  - Developed a modular CLI Bash script for the Infrastructure team to manage RDS access, including IAM authentication, schema, user and query management, streamlining IAM auth and environment access
  - Built Ansible playbooks to enable RDS IAM authentication and automate user/role management
  - Rebuilt and automated the GitLab Runner EKS cluster, improving IaC, availability and disaster recovery
  - Streamlined Terraform management by separating resources into multiple repositories and handling tfstate file imports
  - Increased developer productivity by creating reusable Terraform modules and CI/CD pipeline templates
  - Mentored junior engineers through check-ins, postmortems and coaching
- DevOps Engineer** | Artis Technologies, LLC | Atlanta, GA February 2020 – November 2020
- Managed and optimized EKS clusters for multiple deployments, improving resource utilization and uptime.
  - Automated routine tasks using Bash scripts, AWS Lambda and Kubernetes CronJobs
  - Enhanced monitoring and security by configuring tools such as Datadog, New Relic and Sumo Logic
  - Implemented CI/CD pipelines with CircleCI and optimized pipeline performance, reducing deployment times by 60%.
  - Performance tune pipelines to decrease deployment times by 60%
  - Automated security group rule creation for CircleCI runner ingress connectivity to AWS resources
  - Developed custom AWS WAF rules to resolve integration issues with Twilio IPs hosted on AWS, allowing for uninterrupted traffic flow
- Software Engineer, DevOps & Training Platforms** | Itential, LLC | Atlanta, GA January 2019 – February 2020
- Configured and automated Itential's learning environment using Ansible and Docker for internal and external customers
  - Automated Itential's learning environment setup using Ansible and Docker, improving deployment times by 30%
  - Developed RESTful APIs using Express.js and Puppeteer to automate CRUD operations, enhancing operational efficiency
  - Deployed and configured monitoring tools (openLDAP, Netbox, Zabbix, Grafana) for improved visibility and system management
  - Automated container and inventory cleanup processes using Ansible, Docker, Node.js and MongoDB
  - Contributed to agile development sprints, ensuring timely delivery of features
- Academic Technology Coach** | Northside Independent School District | San Antonio, TX July 2016 – June 2018
- Delivered professional development programs to enhance technology integration across 7 campuses
  - Collaborated with administrators to ensure technology investments supported educational goals
  - Led decisions regarding instructional technology acquisition and deployment to support student engagement and academic rigor
- Teacher, 4th and 5th grade** | Pflugerville Independent School District | Austin, TX August 2013 – June 2016
- Developed training resources and strategies to address various learning styles, fostering academic growth
  - Assisted in coordinating weekly staff meetings, demonstrating strong teamwork ethic
- Product Specialist Support** | Apple Inc. | Austin, TX September 2007 – August 2012
- Provided technical support for businesses, improving product integration and usage
  - Led training sessions for third-party clients, ensuring a deep understanding of Apple products
  - Created and maintained training resources to certify 3rd-party clients

## Education

- DigitalCrafts | *Full-Stack Web Development* | Atlanta, GA September 2018 – January 2019
- Texas State University | *Master in Education* | San Marcos, TX August 2010 – December 2012
- University of Victoria | *B.A. in History* | Victoria, B.C., Canada September 2002 – August 2007