NATHAN DOUGLAS

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Platform engineer with 14+ years building infrastructure for distributed systems. Currently focused on ML/HPC infrastructure: Kubernetes, Slurm, GPU workloads. Seeking roles bridging platform engineering and scientific computing.

EXPERIENCE

Senior Platform Engineer   Oct. 2020 – Present

Agile Six Applications, Inc (contract to U.S. Department of Veterans Affairs)   *Remote*

- Migrated VA.gov Check-In infrastructure between AWS accounts; converted CloudFormation to Terraform with automated module testing
- Led VA.gov CMS team through two major Drupal upgrades (8 → 9 → 10) with zero unplanned downtime
- Parallelized test suite, reducing CI time by 60%; built system tests spanning multiple products and upstream integrations
- Architected content release pipeline serving VA.gov's 300K+ pages to millions of veterans
- Managed ATO compliance for PHI/PII-handling systems; hired senior engineers and QA architect

Senior Software/DevOps Engineer   Jan. 2016 – Oct. 2020

Convention News Company   *Remote*

- Migrated all products from Acquia to AWS, reducing yearly infrastructure costs by 70%
- Architected infrastructure and backend services for FutureFlight.aero and Business Jet Traveler
- Built Lambda-based subscriber services and data pipelines for ad sales and circulation
- Established CI/CD pipelines and containerized development environments across all products
- Mentored junior engineers on engineering best practices and professional development

Software Engineer   Jan. 2012 – Dec. 2015

DEVONtechnologies   *Remote (Bietigheim-Bissingen, Germany)*

- Developed multi-leader sync system for flagship macOS/iOS apps with millions of users
- Introduced CI/CD pipelines and Agile practices to the development team
- Collaborated with a distributed international team across multiple time zones

TECHNICAL SKILLS

Languages: Rust, Python, Bash, JavaScript, Go, C, PHP, Objective-C, Clojure
Infrastructure-as-Code: Terraform, Ansible, CloudFormation
Orchestration/HPC: Kubernetes, Slurm, Docker, Nomad, Nextflow
CI/CD: GitHub Actions, Jenkins, CodeBuild/CodePipeline
Observability: Prometheus, Grafana, OpenTelemetry, Datadog, CloudWatch
Service Mesh/Security: Consul, Envoy, Vault, Cilium

PROJECTS

🦷 **Goldentooth**: Multi-node Kubernetes cluster with Slurm job scheduling, GPU compute, and JupyterLab; full observability stack and GitOps deployment (*Talos, Kubernetes, Flux CD, Slurm*)

📚 **Bitwit**: Spaced repetition platform for CS education with time-based grading and parameterized card generation (Beta) (*TypeScript, AWS Lambda, DynamoDB*)

🗣️ **Whispers**: Gossip-based mesh network with fraud-resistant distributed optimization via audited CRDTs (*Rust*)

🧪 **Distillation**: Knowledge distillation with Jacobian/Hessian regularization and adversarial training (*Python, PyTorch*)

💻 **Blackpool**: Stack-based bytecode VM with mark-and-sweep GC, closures, and inheritance (*Rust*)

🎲 **Longtable**: Rule-based simulation engine with LISP DSL, immutable world state, and time-travel debugging (*Rust*)

🎮 **Greenstone**: Cycle-accurate NES emulator with precise timing and hardware modeling (*Rust*)

📜 **Clork**: Zork I port with NL Parser, backward-chaining GOAP planner, and OpenAI Gym-style RL training API (*Clojure*)

EDUCATION

University of Nevada, Las Vegas   Las Vegas, NV

Bachelor of Arts in Computer Science   *Dec. 2011*