(919) 283-3055 • ☑ harrison@hat.fo • ③ hat.fo • in hatf0 • ⑤ hatf0

EXPERIENCE

Paradoxum Games

Raleigh, NC (Remote)

Jul 2023 - Present

Site Reliability Engineer

- Reported directly to the CTO.
- o Established a Kubernetes cluster, which serves 113k+ CCU & 3.2m+ unique users/mo, and handles over 5bn+ HTTP requests/mo
- Established monitoring & observability & paging systems for the entire organization (Grafana, Victoria Metrics, Better Uptime)
- Modernized production Kubernetes clusters to follow industry best practices (Git, Helm, ArgoCD)
- Optimized cloud spend, saving \$24k+/yr on unnecessary cloud expenditure
- o Deployed a solution for dynamically managing API endpoint authorization using OAuth2 (Traefik, Ory Oathkeeper, Ory Hydra)
- Spearheaded all Metrics / Analytics development, establishing Big Data infrastructure & identifying KPIs, as well as holding regular meetings with stakeholders
- o Established Big Data ETL pipelines, which currently process 300m+ events/mo (PlayFab, Azure Blob Storage, ClickHouse, Python)

Synapse Softworks LLC

Raleigh, NC (Remote)

Site Reliability Engineer

Aug 2022 - Present

- \circ Created fault-tolerant & reliable services with an uptime rate of 99.99999%, with no recorded downtime since launch.
- o Managed & maintained servers which actively handle 150+ TB of traffic each month.
- O Designed & launched a new e-commerce website using Next.js, Cloudflare, AWS ECS and friends with 3m+ unique visitors/month
- Introduced ELK stack (Elasticsearch, Logstash, Kibana) to enable complex aggregation of massive data-sets, enabling fraud analysts to proactively prevent fraudulent user activity
- $_{\odot}$ Negotiated & worked with multiple SaaS vendors on contracts totaling over \$3m+ USD.
- O Deployed company-wide MDM program (via Apple Business Manager / Microsoft Intune) to manage a fleet of 10+ devices.
- Actively mitigated large-scale DDoS attacks (peak 300m+ requests) via Cloudflare WAF rules, mitigating the impact on end-user experience
- Deployed & managed (via Ansible) a cluster of bare-metal high-performance machines to help accelerate GitHub Actions performance, reducing build times by 60-70%.
- o Technologies: AWS (Amazon Web Services), Ansible, Elasticsearch, Cloudflare, Terraform, Next.js, Rust, C++, TypeScript, HTML, GitHub Actions

Synapse Softworks LLC

Raleigh, NC (Remote)

DevOps Engineer / System Administrator

Jun 2022 - Aug 2022

- \circ Spearheaded the company's migration from GitLab \to GitHub Enterprise, including migration of 30+ CI pipelines to GitHub Actions.
- o Created & deployed reliable AWS infrastructure for C# services via Terraform / GitOps
- Significantly reduced developer friction using GitHub Actions, saving over \$30k+ USD in labor, and reducing the barrier of entry to deploy code to production.
- o Technologies: AWS (Amazon Web Services), Cloudflare, Terraform, GitHub Actions

Symmetry Investments

Contract Software Engineer

Charlotte, NC (Remote)

Jul 2021 - Jul 2022

• Wrote & maintained performance-sensitive code that is currently used to trade \$50 million+ USD via algorithmic trading applications.

- wrote & maintained performance-sensitive code that is currently used to trade \$50 minion+ USD via algorithmic trading applications
- \circ Directly committed code to the organization's standard library, which is used by 100+ engineers on a daily basis.
- Co-led an initiative to provide "private cloud" services for the entire organization, which involved setting up & maintaining a cluster of 20+ Linux servers.
- o Technologies: HashiCorp Nomad, HashiCorp Consul, HashiCorp Vault, Terraform, D Programming Language, GitHub Actions

int3 Systems, LLC

Raleigh, NC / Charlotte, NC

Nov 2020 - Present

Founder / Lead Consultant

- O Kept business in active compliance with all local & federal regulations.
- o Provided software development consulting services for 6+ clients, netting a total of \$150k+ USD over the lifetime of the company.
- o Designed reusable IaC (Infrastructure as Code) components via Terraform for AWS ECS / CodeBuild
- Migrated legacy PHP applications to AWS via AWS ECS
- O Technologies: AWS (Amazon Web Services), Terraform, PHP, GitLab, D Programming Language, C, C++

LANGUAGES / TECHNOLOGIES

- o Languages: C, C++, Python, Rust, JavaScript, CSS, HTML, TypeScript, Java, Bash
- o Technologies: AWS (Amazon Web Services), Microsoft Azure, React, Next.js, Cloudflare, ClickHouse, Kubernetes, Linux, Grafana, etc

PROJECTS

Personal ASN

\(\) https://as395388.com

Nov 2023 - Present

- o I currently operate my own ASN (AS395388) which announces a /24 subnet to the public internet via BGP
- Feeds BGP data to bgp.tools & RIPE Atlas

hat.fo

🗘 hatf0/hat.fo-next Feb 2023 - Present

- o My personal website, written in Next.js / React & hosted on Vercel.
- O Contains a fully functioning virtual machine, capable of running Doom (!)
- \odot Fully styled after the Windows 95 desktop

Linux on HP Prime Graphing Calculator

• hatf0/prinux

Mar 2023 - Present

- o Enabled Doom (on Linux) to run on a HP Prime G2 Graphing Calculator.
- \odot Used Buildroot to create a customized Linux root file system.
- O Tinkered with the Linux kernel build system to enable kernel modules for the Vivante GPU.

Mir Project

G libmir Jan 2021 - Jul 2022

- o Contributed heavily to the Mir project a collection of libraries designed for scientific computing.
- O Revamped CI/CD across the entire project, replacing Travis-CI with GitHub Actions.

Intel Wireless Driver on macOS

• AppleIntelWifi/adapter

Jan 2020 - Jul 2020

 \circ Prototype wireless driver built with Apple's IOKit framework. Uses the undocumented Apple80211/IO80211Family libraries.

MISC

- O Certified as an AutoCAD Certified User
- O Conversational in Japanese