

# Justin Hoppensteadt

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## SUMMARY

Infrastructure and trading systems engineer with 20+ years of experience building and operating large-scale, high-reliability Linux systems across cloud and on-prem environments. Deep expertise in Kubernetes, AWS, networking, and distributed systems.

Currently leading infrastructure for cryptocurrency trading platforms and derivatives systems handling significant global volume and USD 100M+ daily flows. Focused on building robust systems where reliability, scalability, and operational correctness directly impact trading outcomes.

Strong track record of aggressively reducing AWS costs while improving performance through architectural optimization, workload tuning, and efficient resource utilization.

Advanced practitioner of AI-assisted and agentic engineering workflows, leveraging automation to accelerate development, streamline operations, and reduce time-to-resolution for production issues.

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## CORE EXPERTISE

- Large-scale Linux systems & distributed infrastructure
  - AWS architecture & cost optimization (EKS, RDS, networking, storage)
  - Kubernetes at scale (multi-cluster, high-throughput systems)
  - Networking & performance tuning (TCP, kernel, On prem and AWS networking)
  - High-throughput backend systems & data pipelines
  - Infrastructure as Code (Terraform, GitOps, Helm)
  - Observability & reliability engineering (Prometheus, Grafana, Datadog)
  - CI/CD & build systems (Docker, BuildKit, multi-arch pipelines)
  - Programming: Go, Javascript, Python, Perl, Shell
  - Blockchain infrastructure (Ethereum, Starknet, BSC, nodes, validators)
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## PROFESSIONAL EXPERIENCE

### Paradigm - Lead Infrastructure Engineer

Singapore | 11/2023 - Present

- Lead infrastructure for cloud-native trading systems supporting decentralized exchange (<https://paradex.trade>) with USD 100M+ daily transaction volume
- Support derivatives trading frontend (<https://paradigm.co>) handling a large share of global crypto derivatives flow
- Architect and operate low-latency Kubernetes-based systems on AWS using Terraform, Helm, and CI/CD pipelines
- Designed, built, and operate quantitative trading infrastructure supporting 1,000+ algorithmic trading strategies in production across multiple users
- Optimize AWS infrastructure aggressively, reducing spend via rightsizing, storage tuning, networking improvements, and architecture changes
- Debug and resolve low-level networking and TCP issues in collaboration with AWS, improving reliability and latency characteristics
- Introduced AI-driven and agentic workflows to automate debugging, infrastructure management, and operational decision-making
- Contributed production application code in Go and Python supporting trading systems and infrastructure

### DRW - Senior Infrastructure Engineer

Singapore | 08/2022 - 08/2023

- Supported cryptocurrency OTC and algorithmic trading systems with strict latency and reliability requirements
- Implemented GitOps-driven infrastructure using Kubernetes, Helm, and CI/CD pipelines
- Maintained highly available, performance-sensitive systems for trading workloads
- Developed internal tools in Python to support infrastructure and trading operations

### Yield App - DevOps Engineer

Bangkok, Thailand | 02/2021 - 07/2022

- DevOps lead for cryptocurrency investment platform
- Deployed and operated blockchain nodes (Ethereum, Bitcoin, BSC, Erigon) in production environments
- Built AWS infrastructure via Terraform for production and development environments
- Migrated organization to containerized development workflows (Docker)
- Implemented Cloudflare, PagerDuty, and Tailscale for reliability and secure networking
- Developed backend services in JavaScript (Node.js) and built frontend components with React for internal and user-facing applications
- Designed and executed physical hardware buildouts across multiple racks in two data center locations for blockchain nodes and sensitive workloads

## **Live Nation Entertainment - Senior Systems Engineer**

Los Angeles | 05/2011 - 09/2020

- Supported one of the world's largest ecommerce ticketing platforms, operating at global scale with extreme traffic spikes during major on-sale events
- Operated infrastructure spanning 18,000+ Linux systems across datacenters and AWS regions
- Supported high-traffic, PCI-compliant systems handling large volumes of transactional ecommerce traffic
- Led cloud migration and containerization initiatives for legacy systems
- Built internal platforms for monitoring, automation, configuration management, and CI/CD
- Executed large-scale infrastructure migrations (3000+ systems) with minimal downtime
- Developed internal tooling in Go, Python, Perl, PHP, and shell

### **Earlier Experience (2005-2010)**

- Senior Linux Administrator - Universal Music Group
- System Administrator - Buzznet
- Linux System Administrator - ValueClick, Inc.
- UNIX Systems Administrator - Orbitz (Cendant)
- Software Engineer - ITG Solutions

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## **EDUCATION**

DeVry University Bachelor's Degree - Computer Engineering Technology