

Robert Navarro

Staff Platform & Infrastructure Engineer

(626) 991-2322 | crshman@gmail.com | Corona, CA (Remote) | [linkedin.com/in/robnav](https://www.linkedin.com/in/robnav)

PROFESSIONAL SUMMARY

Infrastructure and database reliability engineer with 14+ years operating critical systems at scale. At Block (Square), owned the Tier 0 Items service (a 256-node, 50TB+ MySQL/Aurora cluster serving every Square merchant globally) and led 5 major zero-downtime infrastructure migrations over 5.5 years. Earlier, designed and operated Vitess on Kubernetes at Stitch Labs before Vitess became PlanetScale and delivered a public conference talk on the architecture. Personally operates AS400719, a multi-site BGP network peering at 4 internet exchanges, managed as infrastructure-as-code with Ansible.

WORK EXPERIENCE

Staff Software Engineer | Block (Square), Remote

Jul 2020 – Feb 2026

- Owned the Items service, Square's mission-critical catalog system backed by a 256-node, 50TB+ MySQL/Aurora cluster across 64 active shards, serving every merchant globally
- Led 5 major zero-downtime infrastructure migrations: on-prem to AWS on Kubernetes, Active/Active multi-region reads, Elasticsearch to OpenSearch (16M docs in 1.5 hrs), 50TB+ database resharding, and RDS to Aurora
- Designed and led development of AuthProxy, an internal Go/Kubernetes credential management platform enabling 6 teams to integrate 12 third-party APIs (DoorDash, Uber Eats, TikTok Shopping, Meta, Google, etc.) without building OAuth flows; manages 1M+ credentials with 500K automated refreshes/hour at 50 req/sec sustained
- Architected Active/Active multi-region read path across US-East and US-West, delivering 70ms latency reduction for east-coast merchants and unblocking the Tier 0 Orders team's own multi-region migration
- Served as Terraform SME across 6+ service teams; owned IaC for each team's full stack (Aurora, Redis, OpenSearch, Datadog, PagerDuty, Fastly CDN), kept configurations current as the platform org rolled out infrastructure changes, and trained 15+ engineers to eliminate single-point-of-failure dependency on myself
- Built the oncall onboarding program and runbook for the Channels team from scratch; designed shadowing schedules that onboarded 20 engineers, with the program later adopted by other teams across Block
- Led oncall response for 20+ high-value merchant escalations; diagnosed and resolved an ElastiCache CPU credit exhaustion SEV, migrated to predictable instance types, and introduced monitors that prevented recurrence

Director of Platform Engineering | Stitch Labs (acquired by Block, Jul 2020), San Francisco, CA

Nov 2016 – Jun 2020

- Migrated 3TB sharded MySQL database to a 97-shard Vitess cluster running across 300+ Kubernetes containers, one of the earliest production Vitess-on-Kubernetes deployments; delivered [Percona Live 2017 talk on the architecture](#) alongside Vitess's creator from YouTube, cited by the Linux Foundation when Vitess joined the CNCF
- Reduced infrastructure spend by ~\$50K/month within 2 months with no reduction in availability or application performance
- Managed 100+ virtual hosts via Ansible; implemented GCP Cloud Trace for distributed tracing across 15 microservices; unified authentication across entire infrastructure
- Transitioned on-call from ops-only to full engineering team ownership; led team of 5 DevOps engineers

Director of Engineering | Stitch Labs, San Francisco, CA

Nov 2014 – Nov 2016

- Grew engineering team from 6 to 18; owned hiring across frontend, backend, and DevOps; implemented Scrum achieving 90%+ on-time delivery QoQ
- Returned to hands-on infrastructure work as Director of Platform Engineering

Full Stack Engineer | *Stitch Labs, San Francisco, CA*

Apr 2012 – Nov 2014

- First employee hire at the company (after founders); scaled infrastructure from a single server to a distributed system handling \$2B+ in commerce per month
- Built MySQL sharded infrastructure handling 40,000+ TPS (4x from single server); performed multiple zero-downtime MySQL schema and engine migrations
- Built Elasticsearch-backed log aggregation indexing 400GB/day, cutting support resolution time by 50%
- Deployed HAProxy load balancers with SSL decryption and Layer 7 routing; PagerDuty-integrated monitoring via NewRelic and Munin

PERSONAL INFRASTRUCTURE

AS400719: Personal BGP Network & Homelab

Ongoing

- Operate a multi-site BGP network (AS400719) with 4 IPv4 /24s and 3 IPv6 /48s; peer at 4 internet exchanges (FCIX 10G, FREMIX 10G, ARIX 1G, Edgoo 10G) plus Hurricane Electric transit
- Manage 8 VyOS routers (6 edge, 2 VRRP HA core with OSPFv3 backbone) and 30+ Linux hosts across colocation and home sites, entirely as IaC via Ansible
- Colocation stack: Proxmox VE clusters, Kanidm identity management, LibreNMS network monitoring, Akvorado flow analysis, HashiCorp Vault, InfluxDB

EDUCATION

Bachelor of Science, Electrical Engineering | *University of California, Santa Barbara*

Dec 2010

SKILLS

Databases	MySQL/Aurora, Vitess, OpenSearch/Elasticsearch, Redis/ElastiCache, DynamoDB
Cloud	AWS (Aurora, ElastiCache, OpenSearch, SQS, S3, IAM, ECR), GCP
Orchestration	Kubernetes, Terraform, Ansible, Docker, Istio/Envoy
Networking	BGP, OSPF, VyOS, Envoy proxy, Fastly (VCL), HAProxy
Languages	Go, SQL, HCL (Terraform), Python, Shell, Lua
Observability	Datadog, PagerDuty, LibreNMS, InfluxDB, Akvorado
CI/CD	Buildkite, blue/green deployments, canary rollouts, progressive delivery