

Shanah Jr Suping

Software Engineering and DevOps Lead

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PROFESSIONAL SUMMARY

Software engineering and DevOps lead since 2023, accountable for a multi-tenant compliance platform and the VMware and Linux estate it runs on. Builds product in Go, PHP 8 with Laravel, and TypeScript, and runs the platform under it: MySQL 8 and InnoDB internals, Docker, systemd, nginx, and a Prometheus and Grafana stack built in-house.

EXPERIENCE

Software Engineering and DevOps Lead

Botswana-based software company: KYC and AML compliance software, physical and electronic document management, application hosting, disaster recovery and backup services | 2023 to Present

- Cut client API write latency from 300 seconds, at the web server timeout, to consistently sub-second, by finding a missing index that made every write scan a full audit table. Rolled across every tenant schema in the estate with no failures.
- Reduced a full customer screening run from 40 minutes to 4.5 minutes, moving cache, sessions and queues to Redis and removing a page that rewrote a large JSON payload on every load.
- Patched the production fleet in a single night with zero failed upgrades, and ran major version upgrades in 16 minutes of downtime with rollback retained on each.
- Built the monitoring and alerting stack in-house from nothing, found Grafana alerting structurally unable to fire and fixed it, then cut alert noise from 226 emails in five days to true positives only.
- Traced dead background queues across the estate to a Supervisor retry default that stopped a site's queues for days after a three second database blip, recovering 88 dead workers.
- Designed and built the office network end to end: dual-WAN failover on pfSense over Proxmox, VLAN segmentation, DHCP, recursive DNS and OpenVPN remote access, with policy routing on MikroTik RouterOS edge routers so devices moved across one at a time. Documented as a build guide with runbooks.
- Built monitoring for client-owned servers without opening a single new listening port, using loopback-only exporters reached over outbound SSH forwards under systemd, with keys restricted to port forwarding, a forced command and an explicit port allowlist.
- Introduced TLS to an on-prem product that shipped without it, behind a 443 line certificate procedure.

Software Developer, Freelance

Bare Perfumes, South Africa | Dec 2021 to 2022

- Built a cross-platform mobile app for a perfume retailer, replacing spreadsheet-based order and agent management with an app covering ordering, delivery and commissions.
- Integrated Peach Payments for card payments and Pargo for pickup-point delivery, and built the customer-to-agent conversion flow and commission calculator the business sells on.
- Delivered on Ionic and Angular with Firebase (Firestore, Authentication, Storage, Cloud Functions) and automated order email through the Trigger Email extension.

Lead Developer, Final Year Project

University of Pretoria, in a team of five | Mar 2021 to Nov 2021

- Led development of an ice production and delivery management system for a company still running on paper, covering trip sheets, vehicle and driver assignment, check-in and delivery status.
- Worked across the stack, from the ASP.NET Core and SQL Server back end to the Ionic and Angular front end, and ran the deployment with Docker.

TECHNICAL SKILLS

Languages: Go, PHP 8, TypeScript, JavaScript, SQL.

Frameworks: Gin, GORM, Goose, templ, Laravel 8 to 13, Blade, Livewire, React 19, Next.js 15 and 16, Tailwind, shadcn/ui, React Native 0.85 bare and Expo Router.

Data: MySQL 8 and InnoDB internals, PostgreSQL, SQLite, Redis.

Infrastructure: VMware ESXi, Proxmox, Docker and Compose, systemd, Supervisor, nginx, Apache, OpenSSL and certificate operations, UFW, chrony, MinIO, ClamAV.

Networking: pfSense (multi-WAN failover, NAT, firewall policy), MikroTik RouterOS, 802.1Q VLANs and trunking on managed Aruba switches, OpenVPN, DHCP, recursive DNS and split-horizon DNS, internal certificate authorities.

Observability: Prometheus with node, mysqld, blackbox and php-fpm exporters, Grafana, Loki, VictoriaMetrics.

Testing: PHPUnit, Playwright, Laravel Dusk, Vitest, Jest.

SELECTED PROJECTS

NTSDB, TV tracking platform (ntsdb.shanahjr.com). A monorepo with four clients against one Go and Gin API: a Next.js 15 web app, an Expo React Native app, and a browser extension. SQLite with Goose, OAuth, web push, WebRTC calling, and two-way progress sync with TMDB, AniList and MyDramaList. Self-hosted and live.

Golden Route Shipping. A group-buying and container import system for a Botswana importer, where members pool orders until a container fills. Go API, Next.js client, PostgreSQL, Redis-backed websocket chat, MinIO, ClamAV upload scanning and a Cloudflare Tunnel, under docker-compose, with a Playwright end-to-end suite.

Pocket Recall. An offline-first Android app for storing and copying everyday reference numbers. Bare React Native 0.85, SQLite, on-device ML Kit OCR and barcode scanning, PIN lock and backup to the user's own Google Drive. No server holds the data.

PriceBasket. An offline Android app for tracking grocery prices per store branch in Botswana, with VAT-aware baskets, automatic price history, barcode scanning and branch comparison. Bare React Native with local SQLite.

EDUCATION

BIS Information Science

University of Pretoria | 2022

Majored in Information Science, minored in Informatics.

National Senior Certificate

Cornerstone College | 2017

Top student in Information Technology.

REFERENCES

Available on request.