

SHARIF SULE NDLOVU

Software Developer | Cloud & DevOps Engineer | AWS Certified Solutions Architect

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PROFESSIONAL SUMMARY

Software Developer and AWS Solutions Architect specialising in production Django systems on AWS. Track record of delivering mission-critical government and commercial platforms that are live in production — a nationwide land-use management system for CoGHSTA, Mpumalanga, and a multi-tenant citizen-services platform for the Office of the Premier, Mpumalanga, serving ten provincial departments. Strengths across the full stack: Django/DRF, event-driven architecture (Celery, RabbitMQ, SQS), and end-to-end AWS infrastructure owned and operated across QA, UAT, and Production environments.

PROFESSIONAL EXPERIENCE

Software Developer & Cloud Architect

DevBridge (Independent Practice) | Pretoria, South Africa | 2021 – Present

Livi (Livilemphakatsi) — Multi-Tenant Citizen-Services Platform *Live in production*

Multi-tier government case-management platform for the Office of the Premier, Mpumalanga. Citizens submit cases via web and mobile; ten provincial departments resolve them through branded backoffice portals.

- **Subdomain multi-tenancy** — one Django application serving 10 departments across 30 subdomains, with isolated auth and per-department theming via custom middleware.
- **Unified case ingestion** — web and mobile submissions normalised into a single queue; status-driven case model (NEW → IN_PROGRESS → RESOLVED).
- **SLA engine** — Celery Beat with SQS/RabbitMQ polling and automatic escalation on breach; Amazon MQ with 12 domain-partitioned queues.
- **Queue migration** — migrated SQS → RabbitMQ (AMQP/pika) mid-project; rebuilt payload schemas, idempotency keys, and audit tables for the new transport.
- **Realtime & media** — Server-Sent-Events chat over async Daphne with Redis pub/sub; AWS Rekognition gating inbound media for moderation.
- Built Django REST Framework API with token authentication for mobile-app integration; deployed on ECS Fargate via CloudFormation.

e-PGLUM — Electronic Planning & Land-Use Management *Live — [epglum.co.za](#)*

Nationwide land development and building-plan application system serving South African municipalities. Live for CoGHSTA, Mpumalanga; confirmed live by Thembisile Hani Local Municipality public notice, March 2026. Owned the full AWS infrastructure across three environments (QA, UAT, Production) within a team of seven.

- **Configurable workflow engine** — database-modelled stage transitions via Django signals across a 96-form government codebase; Python mixins for rapid form assembly.
- **Full AWS environment** — VPCs, private-subnet RDS (PostGIS), ElastiCache, ECS Fargate, ALB, S3/EFS, Route 53, ACM, and AWS WAF tuned for production traffic.
- **Async document pipeline** — Celery-queued S3 uploads with presigned retrieval; tuned CloudFront → ALB → Gunicorn timeouts for 20 MB+ uploads.

- **Nightly statistics pipeline** — Celery Beat aggregation of submissions and user activity into structured RabbitMQ payloads; Excel & PDF reporting for analytics.
- Migrated infrastructure from AWS Copilot CLI to standalone CloudFormation with DRY bash scripts ahead of Copilot EOL.

The Workplace Basics — Django Commerce & Publishing Platform

Django e-commerce and publishing platform for public-sector educational content. Became the technical foundation for every system that followed.

- **Paystack integration** — full payment lifecycle from first principles (charge.success, invoice.payment_failed, subscription.disable) with HMAC-SHA512 webhook verification.
- **Tiered subscriptions** — free/premium access gates with JWT-backed session tokens; digital marketplace and newsletter system.
- **AWS S3 media** — presigned URLs, lifecycle policies, Pillow thumbnails; ASGI/Django Channels for async and real-time features.
- Celery + Redis async dispatch with Papertrail log aggregation; Dockerised via Docker Compose.

Community Web Modernization — DevBridge Social Programme *6 live sites (pro-bono)*

Annual pro-bono initiative replacing outdated, insecure websites for South African community organisations — estates, schools, churches, NGOs, sports clubs — with fast, secure static sites.

- Static architecture with no server runtime or database attack surface; Cloudflare edge CDN, automatic HTTPS, and DDoS protection.
- Git-based push-to-live deployment; full institutional source-ownership handover with no vendor lock-in.

TECHNICAL SKILLS

Languages: Python (Expert), Java, JavaScript, C# (.NET MVC), Kotlin, SQL, Delphi

Web & Backend: Django, Django REST Framework, Celery, ASGI/WSGI, Django Channels, Paystack API, REST API design, Bootstrap

Databases: PostgreSQL, PostGIS, MySQL, Redis, pgvector

Cloud & AWS: ECS Fargate, Lambda, S3, EFS, RDS, ElastiCache, SQS, SNS, EventBridge, SES, CloudFront, Route 53, ACM, IAM, KMS, Secrets Manager, SSM Parameter Store, Rekognition, CloudWatch, CloudFormation

Messaging: RabbitMQ, Amazon MQ, AWS SQS, Celery task queues, Server-Sent Events

DevOps & Tools: Docker, Git, GitHub Actions, CI/CD, CloudFormation, AWS WAF, Azure, Infrastructure as Code

CERTIFICATIONS

- AWS Certified Solutions Architect – Associate
- AWS Certified Developer – Associate
- AWS Certified Cloud Practitioner
- Microsoft Certified: Azure Fundamentals (AZ-900)
- CompTIA Network+
- CompTIA Project+
- Microsoft AI Skills Fest — Building AI Agents

CURRENTLY PURSUING — 2026

In progress: Azure Developer Associate (AZ-204), CompTIA Linux+, HashiCorp Terraform Associate, Bash & Shell scripting

Planned: Kubernetes orchestration, Jenkins CI/CD, Firebase & NoSQL modelling

EDUCATION

University of Pretoria *Jan 2025 – Jun 2025*

Short Course — Programming Languages & Artificial Intelligence

Varsity College *2021 – 2023*

BSc Computer & Application Development — Software Engineering, Cloud Development (Azure), Network Engineering, Advanced Databases, Android (Kotlin), Application Security, IT Project Management, C# (MVC)

Abbotts College *Completed*

High School — IT & Computer Science (Delphi, console applications, PC application development)

SELECTED ACADEMIC PROJECTS

- **Genetic Algorithm Stock Trader** — genetic-programming system evolving trading strategies via tournament selection, crossover, and mutation with F1-score fitness evaluation (Java).
- **Vehicle Routing Optimizer (ACO)** — ant-colony-optimization solver for multi-vehicle routing with time constraints and dynamic pheromone-trail management (Java).
- **TSP Metaheuristic Solver** — Simulated Annealing vs. Tabu Search comparison for the Traveling Salesman Problem with seeded benchmarking (Java).

ADDITIONAL INFORMATION

- **Portfolio:** <https://portfolio.devbridge.co.za>
- **Knowledge Base:** <https://knowledgebase.devbridge.co.za>
- **Availability:** Open to opportunities; available for hybrid work in the Centurion / Pretoria area.

REFERENCES

- **Ronald Conco — Architect · Lead:** Gave architectural direction on the e-PGLUM and OTP projects. Contact details available on request.
- **Miyelani Maphophe — Senior Developer:** Worked alongside on both the e-PGLUM and OTP projects. Contact details available on request.
- **Tharage Godfrey — Senior Developer · Project Manager:** Assigned and coordinated project work on e-PGLUM and OTP. Contact details available on request.